FIRSTLINE CT-5593

MODEL

SERVICE MANUAL

INTEGRATED VIP AND TELETEXT (IVT)

GENERAL DESCRIPTION: The Integrated VIP and Teletext (IVT) is a teletext decoder (contained within a single chip package) for decoding 625-line based World System Teletext transmissions. The teletext decoder hardware is based on the Enhanced Computer Controlled Teletext (ECCT) device (SAA5243) with some additional features; existing ECCT software remains compatible. The Video Input Processor (VIP) section of the device uses new mixed analogue and digital designs for the Data Slicer and the Display Clock Phase Locked Loop functions. As a result, the number of external components is greatly reduced and no critical or adjustable components are required.

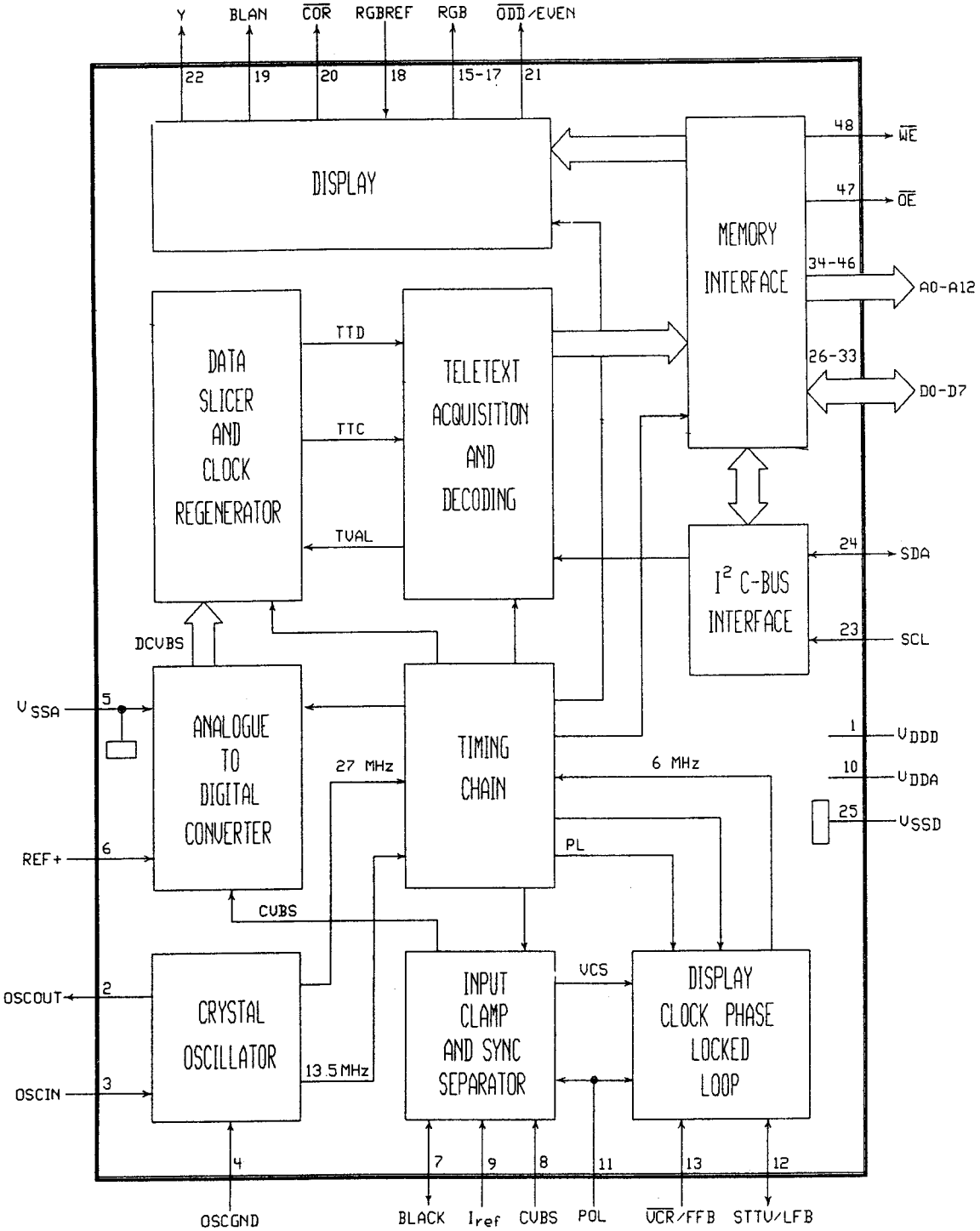
FEATURES:

- Complete teletext decoder in single 48-pin DIL package
- Single + 5 V power supply
- Digital Data Slicer and Display Clock Phase Locked Loop reduce peripheral components to a minimum
- Both video and scan related synchronization modes are supported
- 4/8 page acquisition system is software compatible with ECCT
- RGB interface to standard colour decoder ICs, push-pull output drive; requires only 2 external resistors
- Data capture performance comparable with SAA5231 (VIP2)
- Software compatibility with ECCT maintained
- Interfaces with 8 K x 8-bit static RAM
- Optional storage of packet 24 in the display memory
- Packet 8/30/2 mapped to a different extension chapter, as an aid for VCR programming applications
- Automatic ODD/EVEN output control
- Control of display PLL free-run and rolling header via I^2C-bus
- Software readable ROM version national option

PINNING:

1. +5 V Digital Supply (V_{DDD})
2. 27 MHz Crystal Osc. Output (OSCOUT)
3. 27 MHz Crystal Osc. Input (OSCIN)
4. Crystal Osc. Ground (OSCGND)
5. Analogue Ground (V_{SSA})
6. Positive Reference Voltage for ADC (REF+)
7. Video Black Level Storage (BLACK)
8. Composite Video Input (CVBS)
9. Reference Current Input (I_{ref})
10. +5 V Analog Supply (V_{DDA})
11. STTV / LFB / FFB Polarity Select (POL)
12. Sync to TV Output / Line Flyback Input (STTV/$\overline{LFB}$)
13. PLL Time Constant Switch / Field Flyback Input (VCR/FFB)
14. Digital Ground (V_{SSD})
15. Red Dot Rate Character Output (R)
16. Green Dot Rate Character Output (G)
17. Blue Dot Rate Character Output (B)
18. DC Voltage to define RGB Output High Level (RGBREF)
19. Dot Rate Fast Blanking Output (BLAN)
20. Programmable Output for Contrast Reduction ($\overline{COR}$)
21. 25 Hz Output ($\overline{ODD}$/EVEN)
22. Dot Rate Character Output (Y)
23. Serial Clock Input (SCL)

24. Serial Data Port (SDA)
25. V_{SSD}, 0V digital ground.
26-33. D0-D7, Data lines for the page RAM.
34-46. A0-A12, Address lines for the page RAM.
47. $\overline{OE}$, Output enable to the page RAM.
48. $\overline{WE}$, Write enable to the page RAM.



BLOCK DIAGRAM OF SAA5246

FCB61C65

8K x 8 FAST CMOS LOW - POWER STATIC RAM

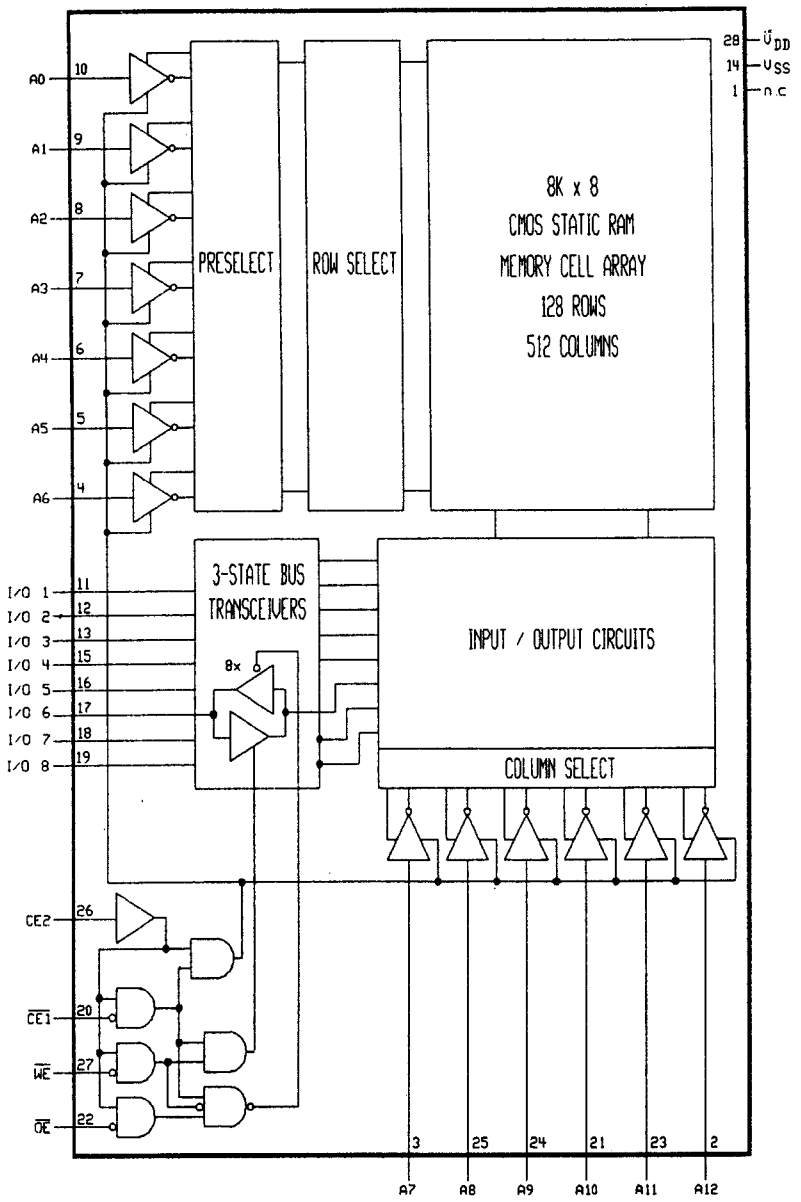
GENERAL DESCRIPTION: The FCB61C65 is a 65536-bit fast, low-power, static random access memory organized as 8192 words of 8 bits each. The chip enable inputs $\overline{CE1}$ and CE2 are available for memory expansion and to control the low-power / stand-by mode. The device operates from a 5 V power supply and has an access time of 55 ns and 70 ns. The FCB61C65 is ideally suited for memory applications where fast access time, low power and ease of use are required. The FCB61C65 is a CMOS device which uses a 6 transistor memory cell.

FEATURES:

- Operating supply voltage
- Inputs and outputs ESD protected
- Automatic power-down after a completed read access
- Access time: 55 ns and 70 ns
- Low current consumption:
- Suitable for battery back-up
- Latched data outputs giving stable data between consecutive accesses
- Easy memory expansion
- Common data I/O interface
- All inputs and outputs TTL and CMOS compatible
- All inputs have a Schmitt trigger switching action
- Three-state outputs
- Operating temperature 0 °C to +70 °C

PINNING:

1. Not Connected
2. Address Input A12
3. Address Input A7
4. Address Input A6
5. Address Input A5
6. Address Input A4
7. Address Input A3
8. Address Input A2
9. Address Input A1
10. Address Input A0
11. Data I/O 1
12. Data I/O 2
13. Data I/O 3
14. Ground
15. Data I/O 4
16. Data I/O 5
17. Data I/O 6
18. Data I/O 7
19. Data I/O 8
20. Chip Enable 1 ($\overline{CE1}$)
21. Address Input 10
22. Output Enable ($\overline{OE}$)
23. Address Input A11
24. Address Input A9
25. Adress Input A8
26. Chip Enable 2 ($\overline{CE2}$)
27. Write Enable ($\overline{WE}$)
28. +5V Supply



BLOCK DIAGRAM OF FCB61C65

PCF 84C81

SINGLE-CHIP 8-BIT MICROCONTROLLER

GENERAL DESCRIPTION: An advanced CMOS process is used to manufacture the PCF 84C81 microcontroller. It has 20 quasi-bidirectional I/O port lines, a serial I/O interface, a single-level vectored interrupt structure, an 8-bit timer/event counter, on-chip clock oscillator and clock circuits. This efficient controller also perform well as arithmetic processor. It has facilities for both binary and BCD arithmetic plus bit-handling capabilities.

FEATURES:

- 8K x 8 ROM
- 256 x 8 RAM
- 20 quasi-bidirectional I/O port lines
- Two test inputs, one of which is also the external interrupt input
- Single-level vectored interrupts: external, timer/event counter and serial I/O
- Interface for serial data transfer on two lines (serial I/O data via an existing port line and clock via a dedicated line)
- 8-bit programmable timer/event counter
- Clock frequency range: 100 KHz to 10 MHz
- Over 80 instructions all of 1 or 2 cycles
- Single supply voltage (2.5 to 5.5 V)
- STOP and IDLE modes
- Power-on reset circuit
- Operating temperature range: -40 to +85 ° C

PINNING:

1. 4-bit I/O Port Bit 2 (P2.2)
2. 4-bit I/O Port Bit 3 (P2.3)
3. Bidirectional Clock for Serial I/O
4. 8-bit I/O Port Bit 0 (P0.0)
5. 8-bit I/O Port Bit 1 (P0.1)
6. 8-bit I/O Port Bit 2 (P0.2)
7. 8-bit I/O Port Bit 3 (P0.3)
8. 8-bit I/O Port Bit 4 (P0.4)
9. 8-bit I/O Port Bit 5 (P0.5)
10. 8-bit I/O Port Bit 6 (P0.6)
11. 8-bit I/O Port Bit 7 (P0.7)
12. Interupt Input / Test Input 0
13. Test Input 1
14. Ground
15. Oscillator Input
16. Oscillator Output
17. Reset Input
18. 8-bit I/O Port Bit 0 (P1.0)
19. 8-bit I/O Port Bit 1 (P1.1)
20. 8-bit I/O Port Bit 2 (P1.2)
21. 8-bit I/O Port Bit 3 (P1.3)
22. 8-bit I/O Port Bit 4 (P1.4)
23. 8-bit I/O Port Bit 5 (P1.5)
24. 8-bit I/O Port Bit 6 (P1.6)
25. 8-bit I/O Port Bit 7 (P1.7)
26. 4-bit I/O Port Bit 0 (P2.0)
27. 4-bit I/O Port Bit 1 (P2.1)
28. Power Supply

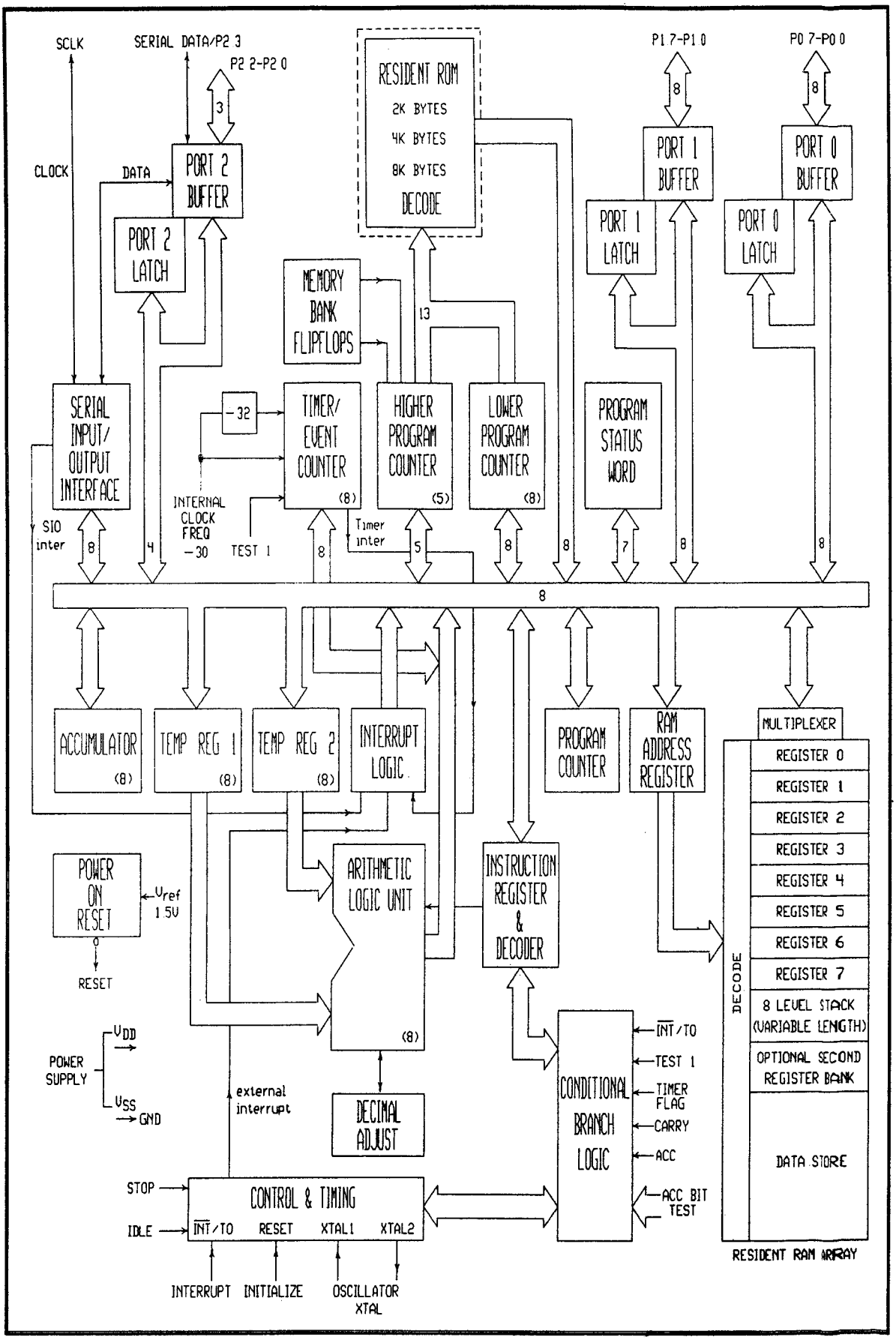
PCA 84C641

MICROCONTROLLER

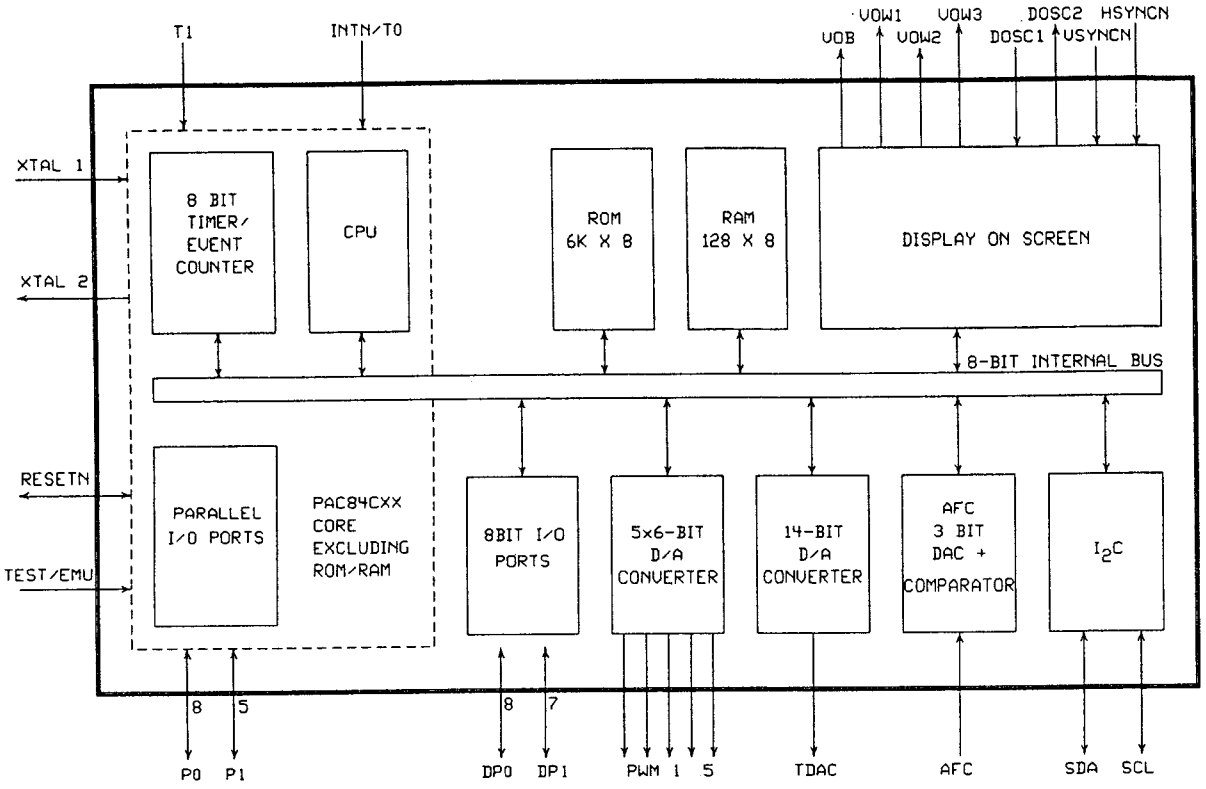
GENERAL DESCRIPTION: The PCA84C641-VST is a member of the PCA84CXX CMOS microcontroller family. It includes the PCA84C processor core, 6144 bytes of mask-programmable program ROM, 128 bytes of RAM, a multimaster 12C bus interface, 2 directly testable lines, 17 general purpose bi-directional I/O lines plus 11 function-combined I/O lines, one 14-bit PWM "analog" control, an AFC input (3-bit DAC + comparator) for voltage synthesized tuning (VST), five 6-bit PWM "analog" control outputs, and a display-on-screen (DOS) facility for two lines of 16 characters (max. 64 character types).

FEATURES:

- 8 bit CPU, ROM, RAM, I/O and derivative logic in one package
- Over 80 instructions
- All instructions of 1 or 2 cycles
- Quasi bidirectional standard I/O port lines (P0, P1)
- Configuration of I/O lines individually selected by mask
- External interrupt TO/INTN
- 2 directly testable inputs T0, T1
- 8-bit timer/event counter
- Single level vectored interrupt : external, counter/timer, I2C
- Power-on-reset and low voltage detector
- Single power supply
- Low standby voltage and current in IDLE and STOP modes
- Operating range : -20 +70 degree C
- 6K X 8 ROM, 128 X 8 RAM
- A multi-master 12C bus interface
- One 14-bit PWM output for VST
- AFC input with 3 bit DAC and comparator
- Five 6-bit PWM outputs (DACs for analog controls)
- Eight port lines with 10mA LED driving capability
- Display on screen of 2 lines by 16 characters
- DOS character set of 64 types
- Four programmable display dot sizes
- Seven colors for each character
- Half-dot character rounding
- One character is composed of 6X9, 8X9, 6X13 or 8X13 dots
- Programmable VSYNCN/HSYNCN input polarity
- LC oscillator for display on screen function



BLOCK DIAGRAM OF PCF84C81



BLOCK DIAGRAM OF PCA84C641 MICROCONTROLLER

PINNING:

1. Tuning voltage control output
2. Volume control output
3. Brightness control output
4. Colour control output
5. CTV322S contrast or hue control output
   CTV340S.VE1 contrast control output
6. CTV322S tone, balance or hue control output
   CTV340S.VE1 hue control output
7. Band-switch 0 output
8. Band-switch 1 output
9. Analogue AFC sense input
10. CTV322S Dual/Non Dual language sound input
    CTV340S.VE1 AV status input
11. VTR time constant control output
12. Ext./int. audio/video source control output
13. Keyboard scan line input/output
14. Keyboard scan line input/output
15. Keyboard scan line input/output
16. Keyboard scan line input/output
17. Keyboard scan line input/output
18. Keyboard scan line input/output
19. Keyboard scan line input/output
20. System mode strobe output
21. Ground supply input
22. OSD red output
23. OSD green output
24. OSD blue output
25. OSD fast blanking output
26. Horizontal synchronization input
27. Vertical synchronization input
28. LC oscillator input for OSD
29. LC oscillator output for OSD
30. Test input; connected to ground
31. Oscillator input; 10 MHz crystal
32. Oscillator output
33. Power-on reset input/output
34. Horizontal coincidence input
35. RC-5 remote control input
36. CTV322S mono/stereo or language 1/2 output
    CTV340S.VE1 RGB source select output
37. CTV322S sound effect control output
    CTV340S.VE1 S-VHS source select output
38. System select output
39. I^2C-bus clock signal output
40. I^2C-bus data signal output
41. Standby/On control input/output
42. +5V supply voltage input

PCF8581

128 X 8-BIT CMOS EEPROMS

GENERAL DESCRIPTION: The 1 Kbit (128 x 8-bit) CMOS EEPROMS are floating gate electrically erasable programmable read only memories.

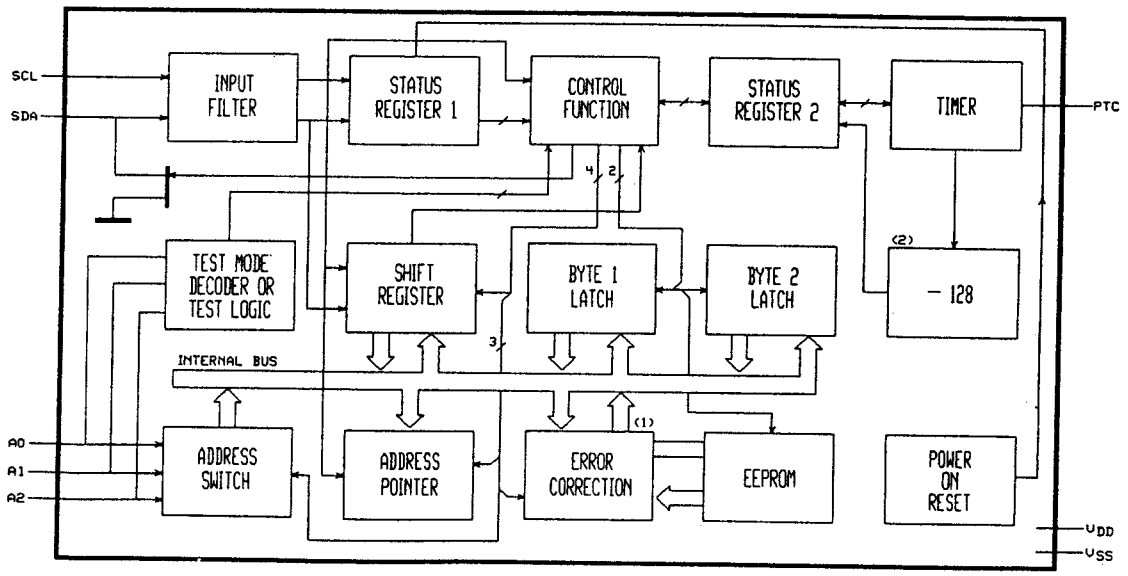
Power consumption is low due to the full CMOS technology used. The programming voltage is generated on-chip using a voltage multiplier.

As data bytes are received and transmitted via the serial I^2C-bus, a package using eight pins is sufficient.

Chip select is accomplished by the three address inputs, which also allows up to eight devices to be connected to the I^2C-bus.

FEATURES

- Non-volatile storage of 1 Kbit organized as 128x8-bits
- Only one power supply required
- On chip voltage multiplier
- Serial input/output bus (I^2C)
- Automatic word address incrementing
- Low power consumption
- Power-on reset
- 10 years non-volatile data retention time
- Pin and address compatible to PCF8570, PCF8571 and PCF8582



BLOCK DIAGRAM OF PCF8581 EEPROM

PINNING

1. Address input
2. Address input
3. Address input
4. Ground
5. Serial data line
6. Serial clock line
7. Can be connected to V_{DD} or left open-circuit
8. Positive supply voltage

LA 7910

TV TUNER BAND SELECTOR

GENERAL DESCRIPTION: The LA7910 is an IC for tuner band selection of electronic tuning type television set. This IC is used for producing the VHF channel "L" band power supply, VHF channel "H" band power supply, UHF channel power supply for tuner and the CATV power supply according to the band select signal of 2 inputs.

FUNCTIONS

- VHF "L" band power supply output
- VHF "H" band power supply output
- UHF power supply output
- CATV power supply output

FEATURES

- 2 inputs and 4 outputs
- Low output saturation voltage : 0.25V typ., $I_O = 60mA$
- Compact 9-pin single-end package

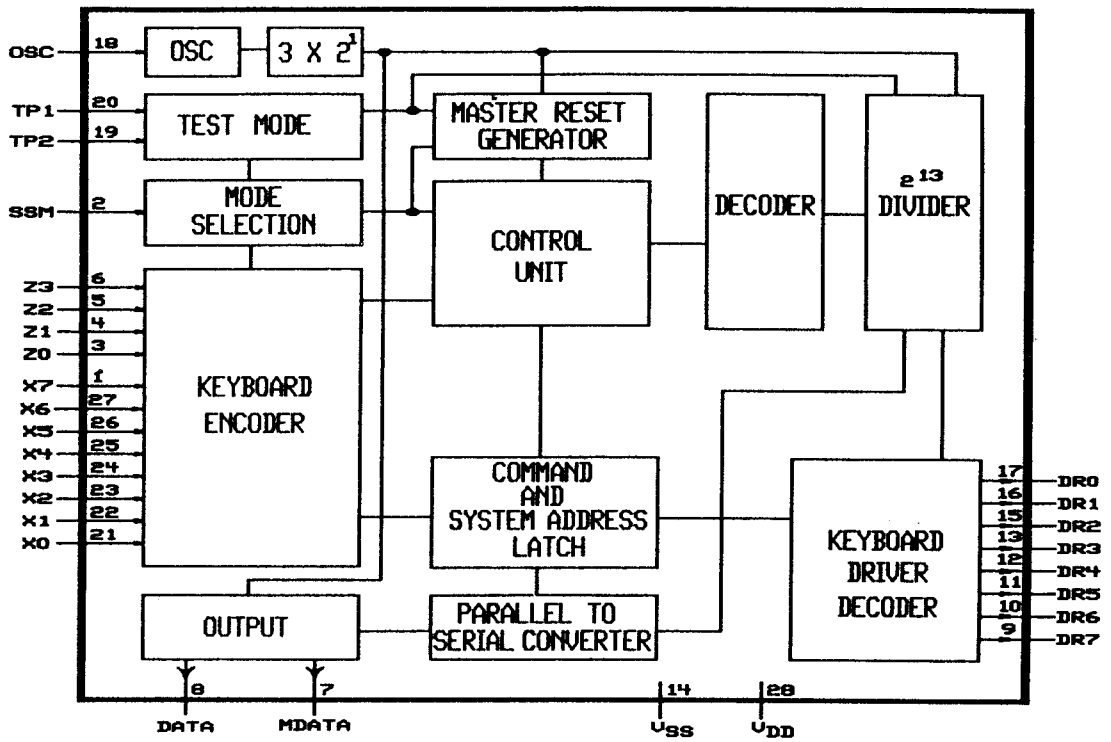
SAA 3010

INFRARED REMOTE CONTROL TRANSMITTER

GENERAL DESCRIPTION: The SAA3010 is intended as a general purpose (RC-5) infrared remote control system for use where a low voltage supply and a large debounce time are expected. The device can generate 2048 different commands and utilizes a keyboard with a single pole switch for each key. The commands are arranged so that 32 systems can be addressed, each system containing 64 different commands.

FEATURES

- Low voltage requirement
- Biphase transmission technique
- Single pin oscillator
- Test mode facility

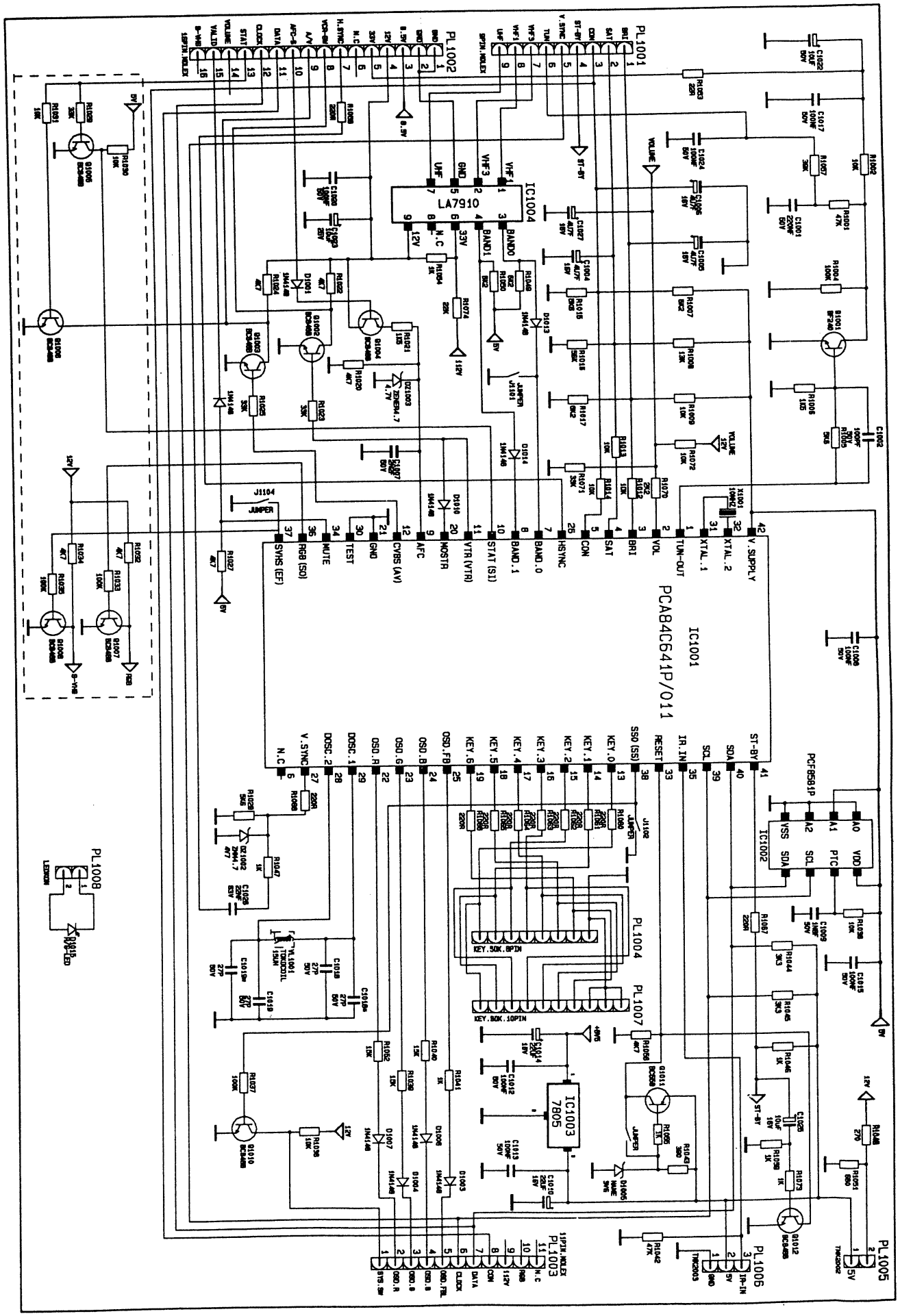


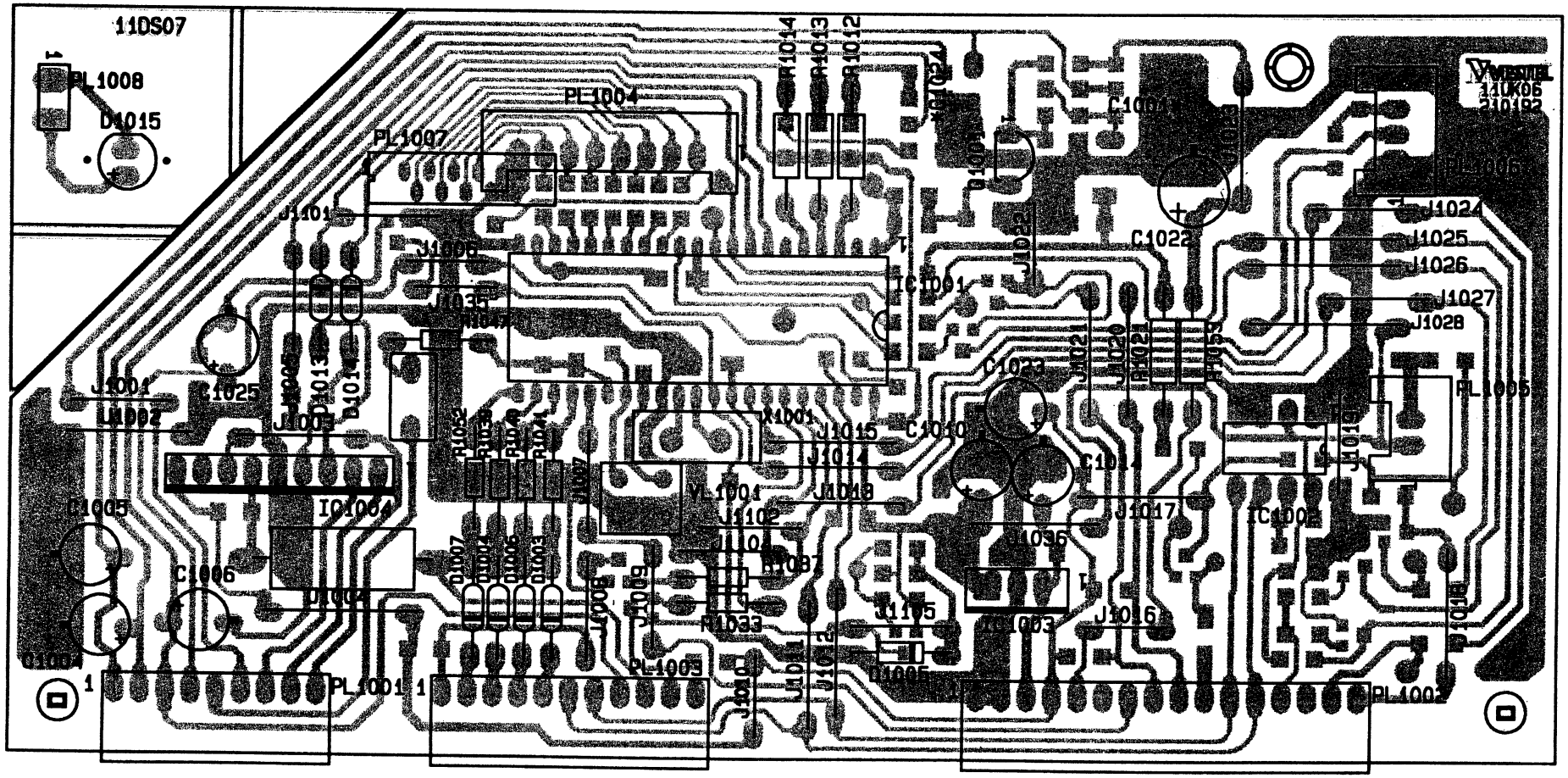
BLOCK DIAGRAM OF SAA3010

PINNING

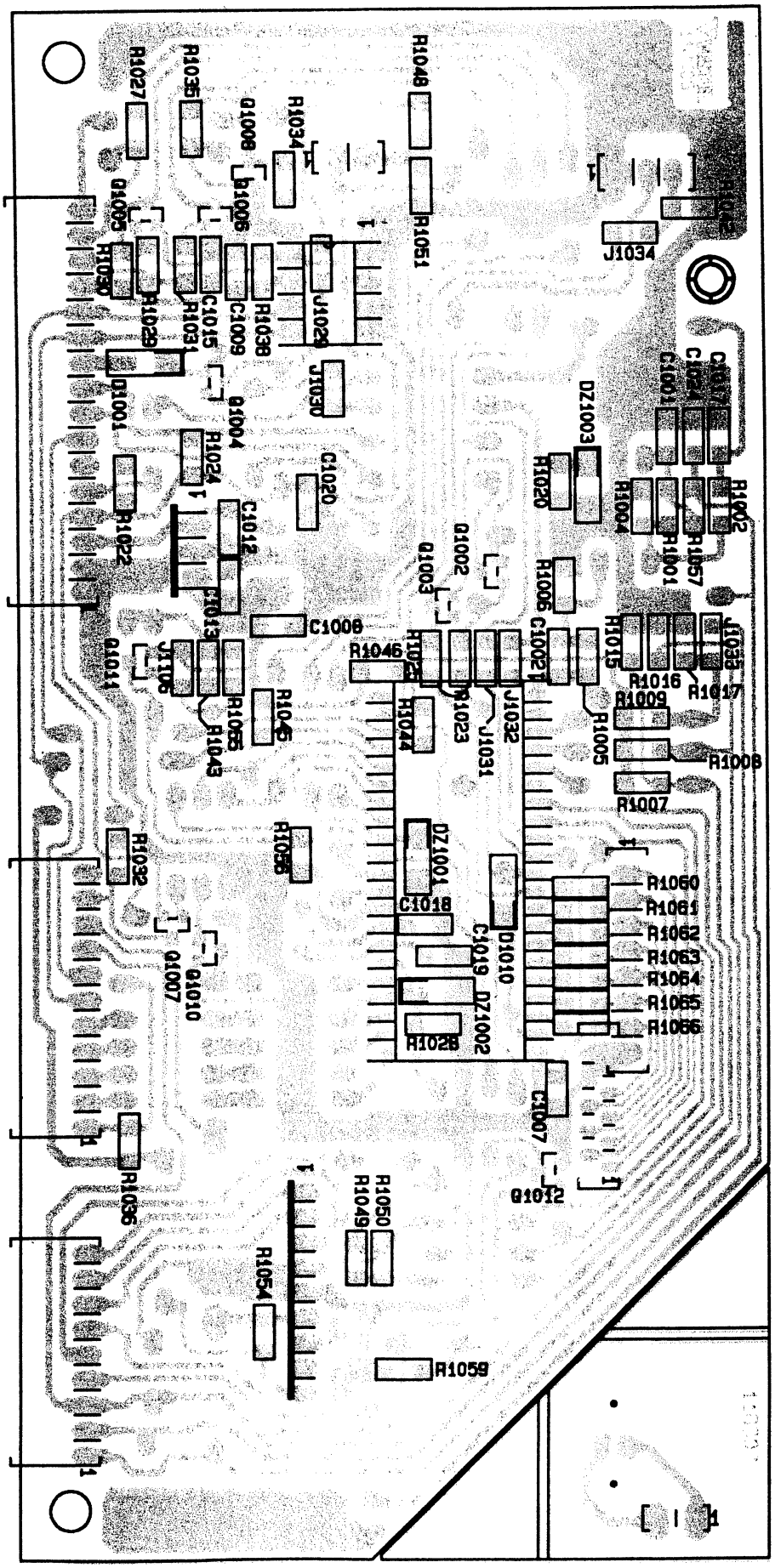
1. Sense input from key matrix
2. System mode selection input
3. Sense input Z0 from key matrix
4. Sense input Z1 from key matrix
5. Sense input Z2 from key matrix
6. Sense input Z3 from key matrix
7. Generated output data modulated with 1/12 the oscillator frequency
8. Generated output information
9. Scan driver DR7
10. Scan driver DR6
11. Scan driver DR5
12. Scan driver DR4
13. Scan driver DR3
14. Ground
15. Scan driver DR2
16. Scan driver DR1
17. Scan driver DR0
18. Oscillator input
19. Test point 2
20. Test point 1
21. Sense input X0 from key matrix
22. Sense input X1 from key matrix
23. Sense input X2 from key matrix
24. Sense input X3 from key matrix
25. Sense input X4 from key matrix
26. Sense input X5 from key matrix
27. Sense input X6 from key matrix
28. Voltage supply

CIRCUIT DIAGRAM OF 11UK06 CONTROLLER MODULE

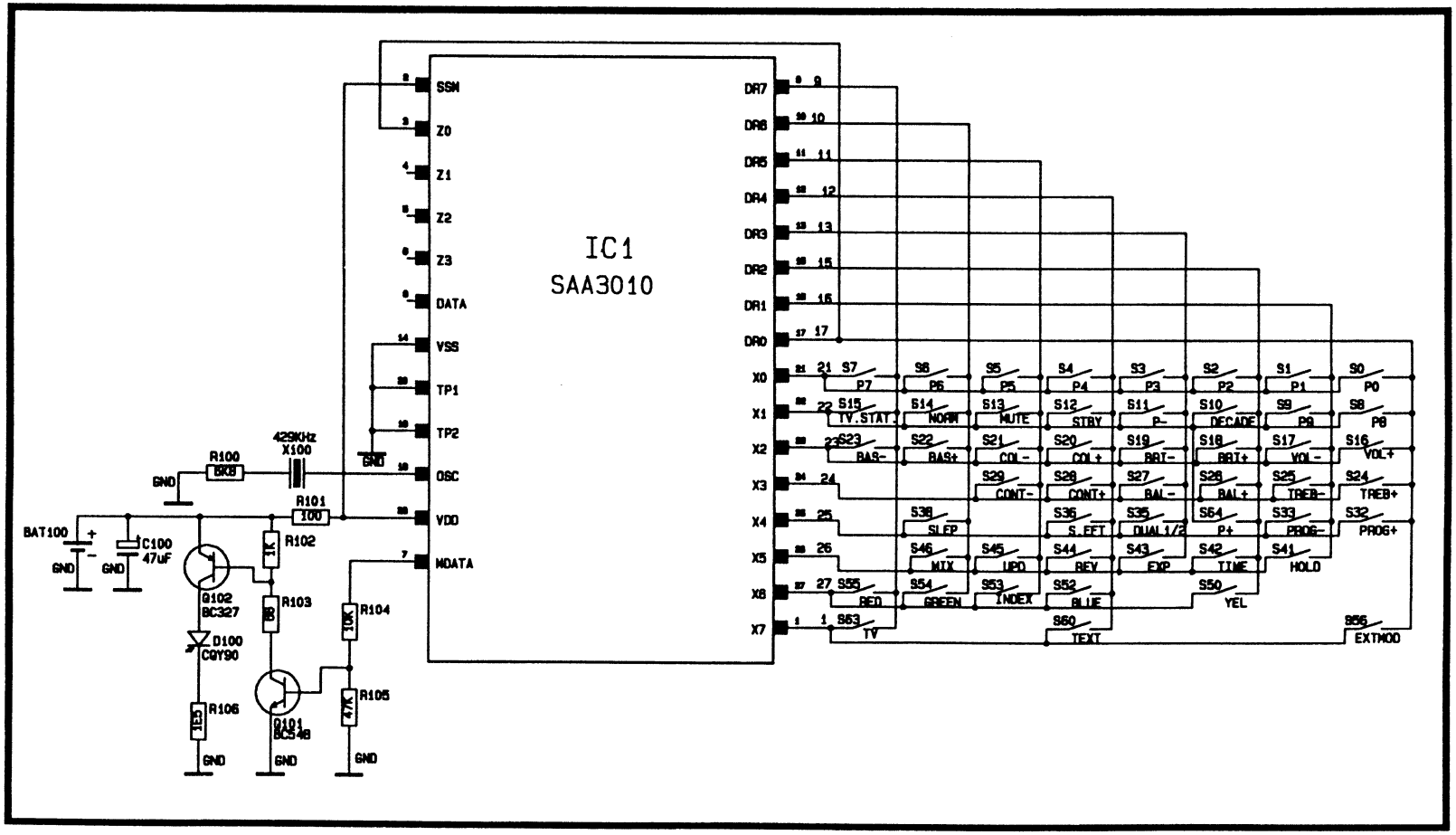




11UK06 MODULE LAYOUT (COMPONENT SIDE)

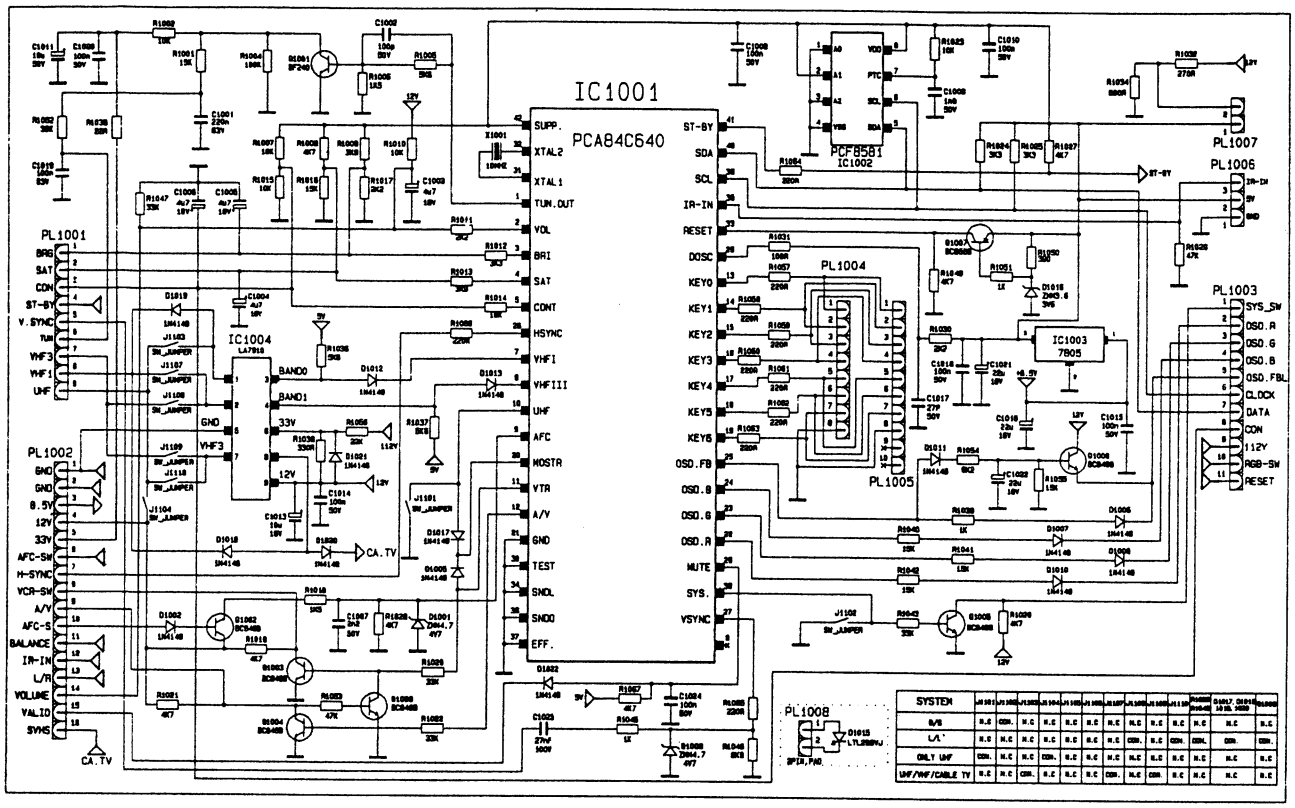


11UK06 MODULE LAYOUT (SMD SIDE)

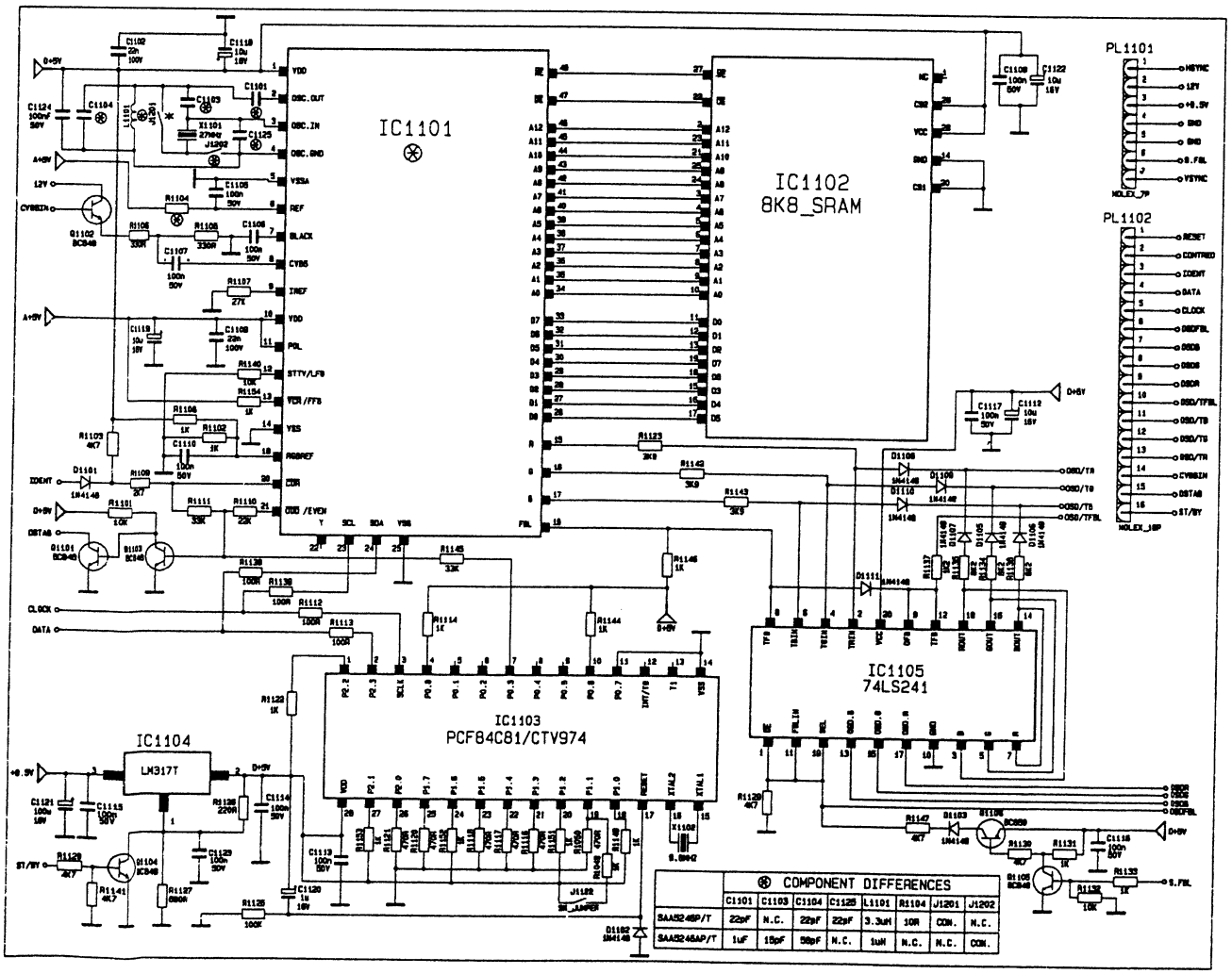


TRANSMITTER CIRCUIT DIAGRAM

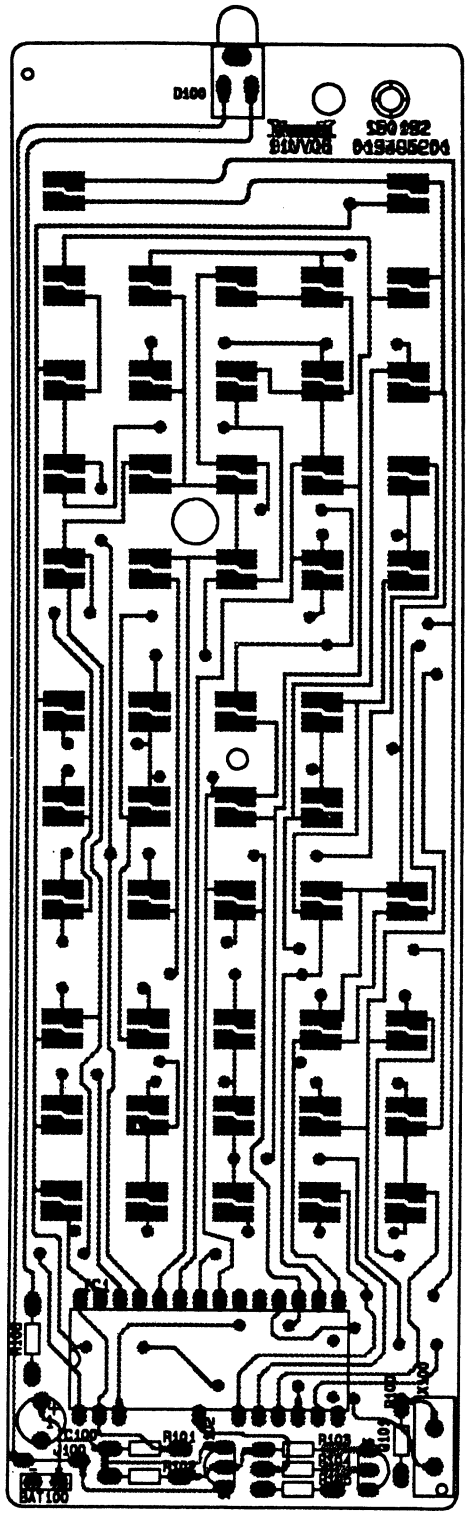
CIRCUIT DIAGRAMS



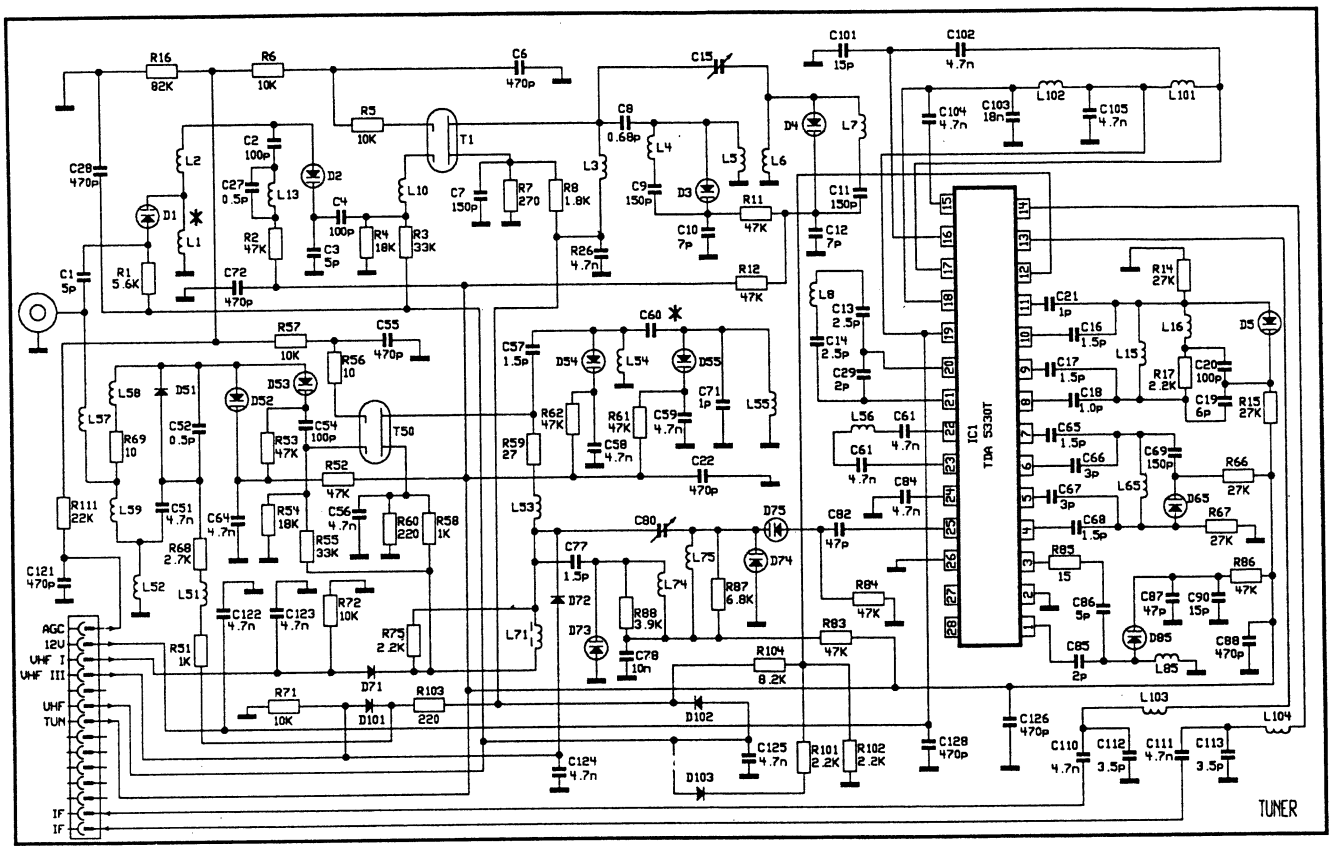
11UK05-1 REMOTE CONTROLLE MODULE

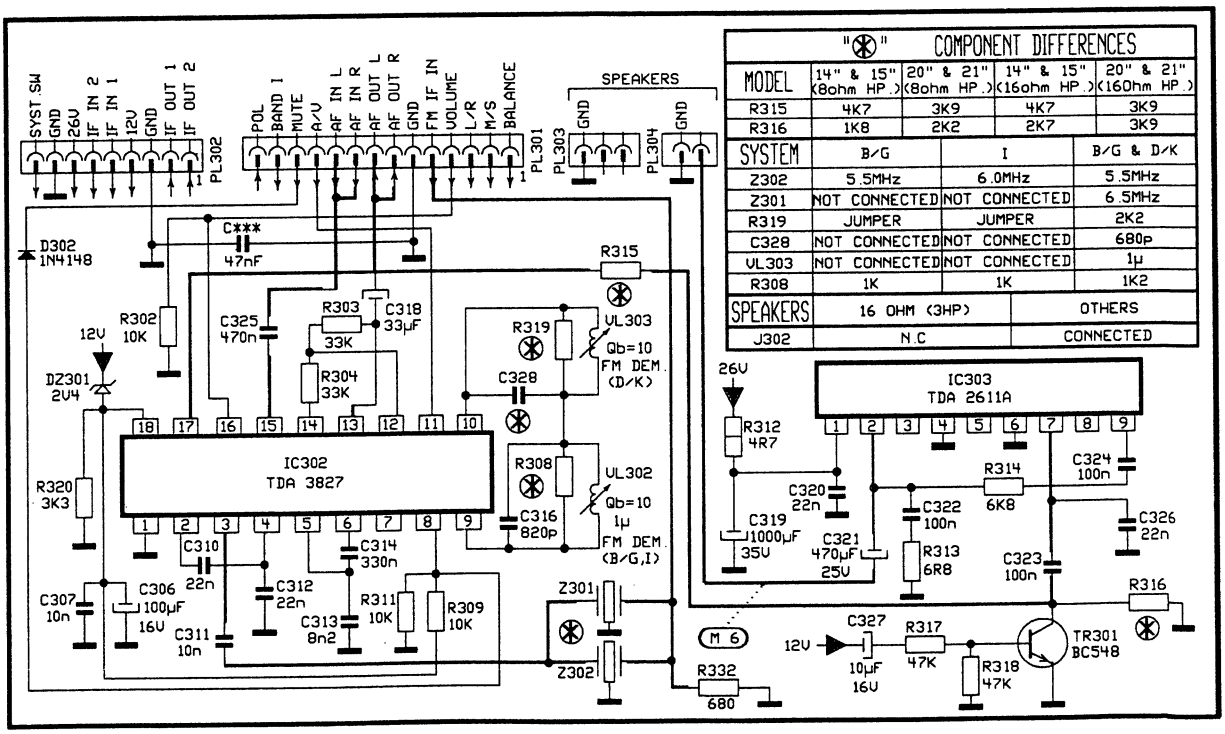


11TT05-1 TELETEXT MODULE



TRANSMITTER LAYOUT





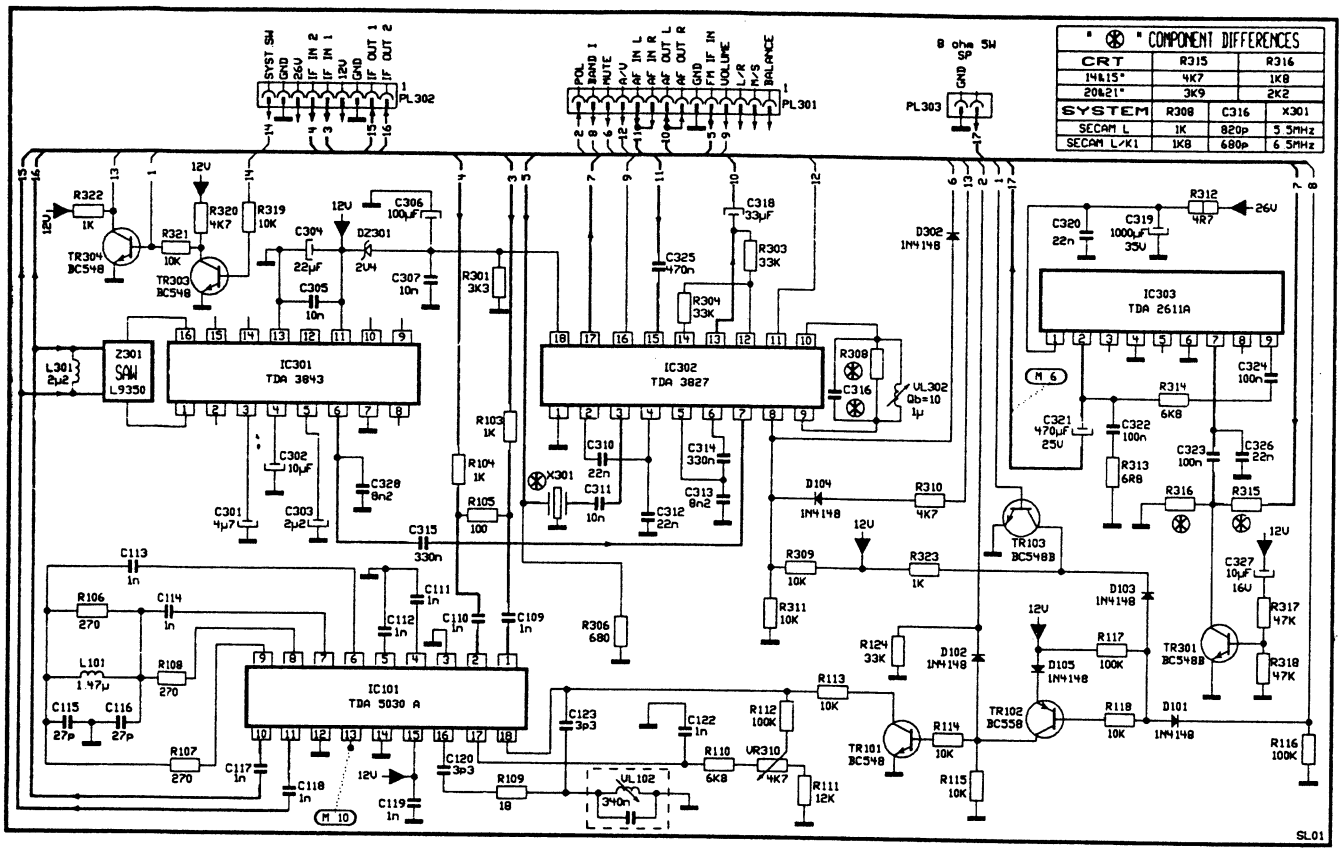
"⊛" COMPONENT DIFFERENCES

MODEL	14" & 15" (8ohm HP.)	20" & 21" (8ohm HP.)	14" & 15" (16ohm HP.)	20" & 21" (16Ohm HP.)
R315	4K7	3K9	4K7	3K9
R316	1K8	2K2	2K7	3K9

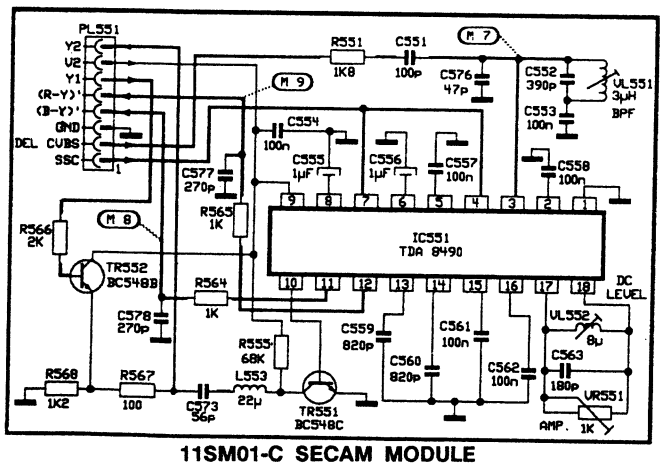
SYSTEM	B/G	I	B/G & D/K
Z302	5.5MHz	6.0MHz	5.5MHz
Z301	NOT CONNECTED	NOT CONNECTED	6.5MHz
R319	JUMPER	JUMPER	2K2
C328	NOT CONNECTED	NOT CONNECTED	680p
VL303	NOT CONNECTED	NOT CONNECTED	1µ
R308	1K	1K	1K2

SPEAKERS	16 OHM (3HP)	OTHERS
J302	N.C	CONNECTED

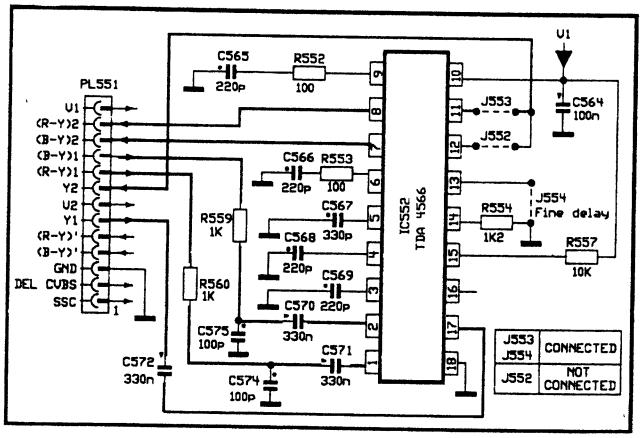
11SD01-C SOUND MODULE (FOR B/G, I, D/K)



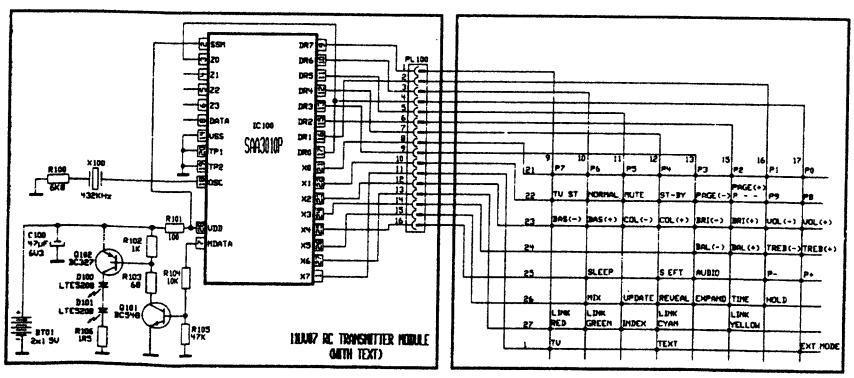
11SL01-A SOUND MODULE (FOR L/L', L/K1&B/G)

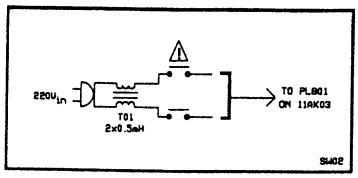


11SM01-C SECAM MODULE



11CT01 CTI MODULE





11SW02 SWITCHING MODULE

11AK03 MAIN CHASSIS

		Ceram.	Polypropylen	Polyester Polycarb.
		nil 50V	nil 63V	63V
	1/4W	160V	160V	160V
	1/2W	250V	250V	250V
	1W	500V	500V	400V
	2W	1.5kV	1.5kV	1.5kV

M : Metal film resistor
F : Fusible resistor
MO : Metal oxide film resistor
: Insert Jumper acc to the following tables
: From original source only

N.B. Safety components marked with ⚠ must be replaced with original or approved components only.
All printed boards and the back cover are also safety components.

ATTENTION

The manufacturer reserves the right to change the design and specification without prior notice and warning.

"⊛" COMPONENT DIFFERENCES DEPENDING ON CRT

CRT TYPE	CODE	C604 1600V nF	R608 1/4W Kohm	L602 TERMAL	C606 400V nF	R713 1/4W Kohm	R715 1/4W Kohm	R701 ohm	R708 ohm 1/2W	R709 ohm 1/2W
HITACHI	A51JSY61X03 21"	8.2	6.8	240210 2054	470	1.8	JUMPER	1K	1/4W	470	470
TOSHIBA	A51JRUM0X04 21"	8.2	6.8	240210 2054	470	N.C.	1.8	330	1/2W	330	330
VIDEOCOLOR	A51EBU13X013 21"	6.8	6.8	240210 2054	470	4.7	JUMPER	1K	1/4W	470	470
SAMSUNG	54HG899X-TC 21"	7.5	6.8	240310 1024	470	N.C	JUMPER	1K	1/4W	470	470
SAMSUNG	51GG895XTC 20"	7.5	6.8	240310 1024	330	4.7	JUMPER	1K	1/4W	470	470
GOLDSTAR	A48KCS12XX09 20"	7.5	6.8	240310 1024	330	4.7	JUMPER	1K	1/4W	470	470
HITACHI	A48JSK61x01 20"	7.5	6.8	240310 1024	330	4.7	JUMPER	1K	1/4W	470	470
TOSHIBA	A48JGR46X01 20"	7.5	6.8	240310 1024	470	4.7	JUMPER	1K	1/4W	470	470
ORION	A48JLL90x11 20"	7.5	6.8	240310 1024	330	1.8	JUMPER	1K	1/4W	470	470
TOSHIBA	A36JAM40X03 15"	6.8	10	240210 2055	330	1.8	JUMPER	1K	1/4W	470	470
HITACHI	A36JUF60X06 15"	6.8	10	240210 2055	330	1.8	JUMPER	1K	1/4W	470	470
SAMSUNG	37GDA85X-TC 14"	8.2	8.2	240210 2054	330	4.7	JUMPER	1K	1/4W	470	470
GOLDSTAR	A34KFC12XX 14"	8.2	10	240210 2054	330	N.C	JUMPER	1K	1/4W	470	470
TOSHIBA	A34JAM0X04 14"	8.2	10	240210 2054	330	1.8	JUMPER	1K	1/4W	470	470
HITACHI	A34JLM61X02 14"	8.2	10	240210 2054	330	1.8	JUMPER	1K	1/4W	470	470

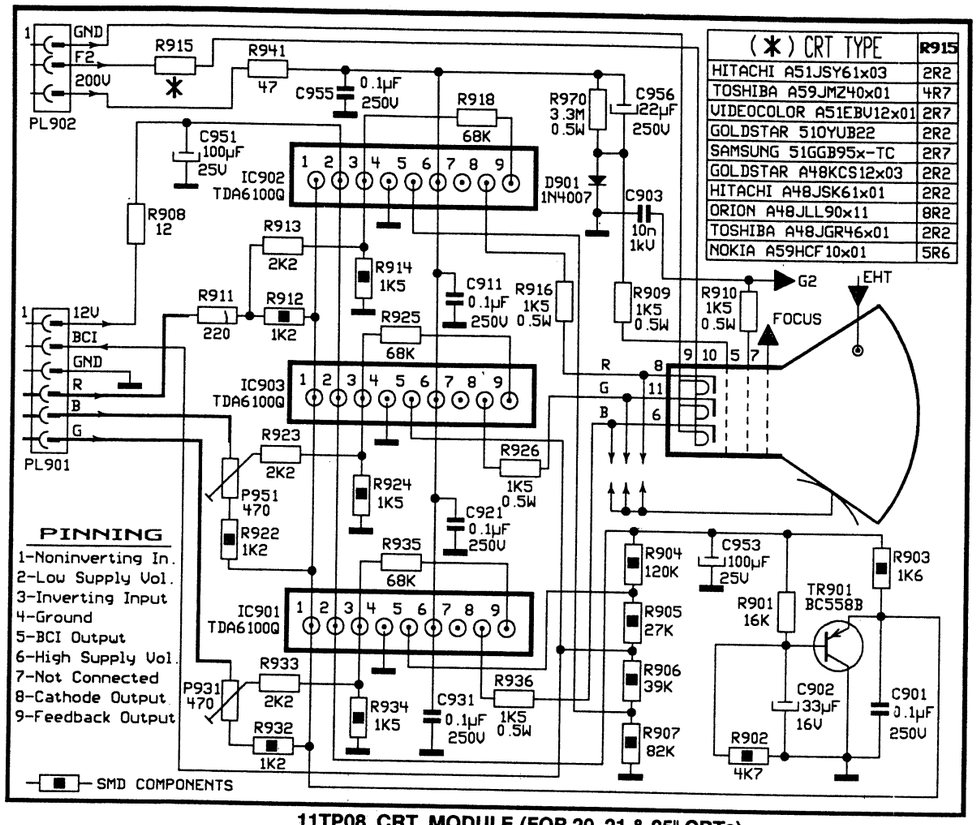
"⊛" COMPONENT DIFFERENCES DEPENDING ON SYSTEM, MONO/STEREO, CTI AND TEXT

SYSTEM	Z201	J106, 107,209	R206	R235	R236	C207	C211	C103	C104	C106	C108	R441, 442,443
PAL I	OFWJ 1953	CON.	8K2	JUMPER	N.C	10µF	N.C	N.C	1µF	470µF	470µF	N.C
PAL B/G SEC B/G	OFWG 1962	CON.	8K2	JUMPER	N.C	10µF	N.C	10µF	10µF	10µF	68µF	10
PAL B/G SEC B/G&D/K	OFWK 2954	CON.	8K2	JUMPER	N.C	10µF	N.C	10µF	10µF	10µF	68µF	10
PAL B/G SEC B/G&L/L'	OFWG 1962	N.C	6K8	1K	22K	6.8µF	10µF	1µF	10µF	10µF	68µF	10
SEC L/K1	OFWK 2950	N.C	6K8	1K	22K	6.8µF	10µF	1µF	10µF	10µF	68µF	10

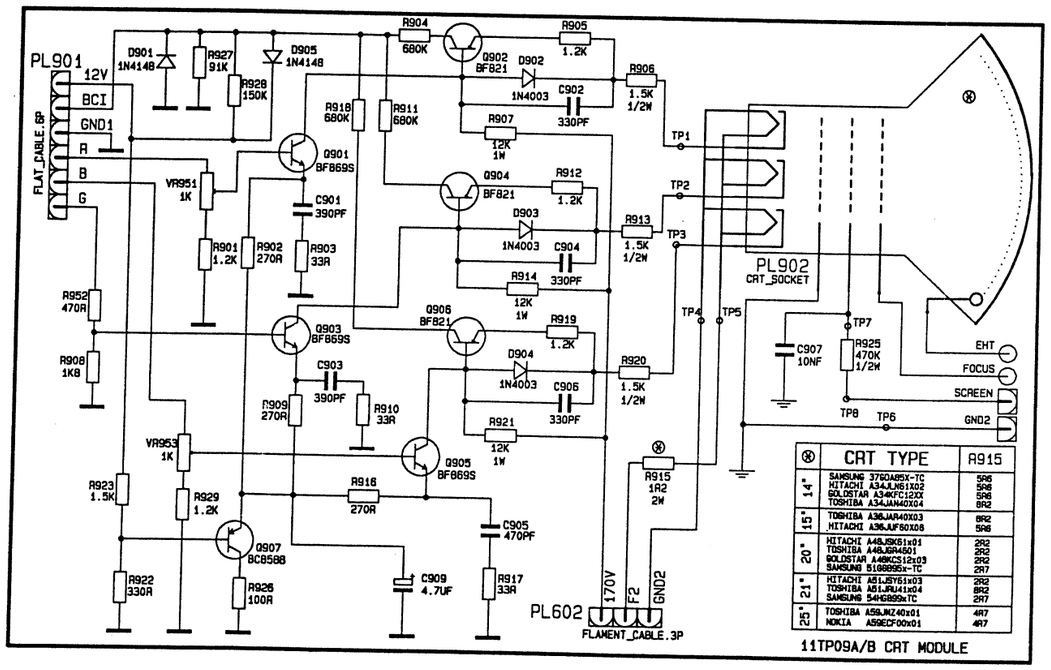
TELETEXT	J405,467 468,469,470	MONO/STEREO	R472	OTHERS
WITH TEXT	CONNECTED	MONO	NOT CONNECTED	
WITHOUT TEXT	CONNECTED	STEREO	10K	R427 CONNECTED ONLY FOR TDA 8390-4 VERSION, OTHERWISE, NOT CONNECTED 1 Mohm

CTI	L405,406	L403,404	C452,453	J424,425 J427	R232,231,234 J601,453,C208	J 602,454
WITH CTI	47µH	JUMPER	270pF	N.C	N.C	CON.
WITHOUT CTI	JUMPER	1µH	180pF	CON.		

920627

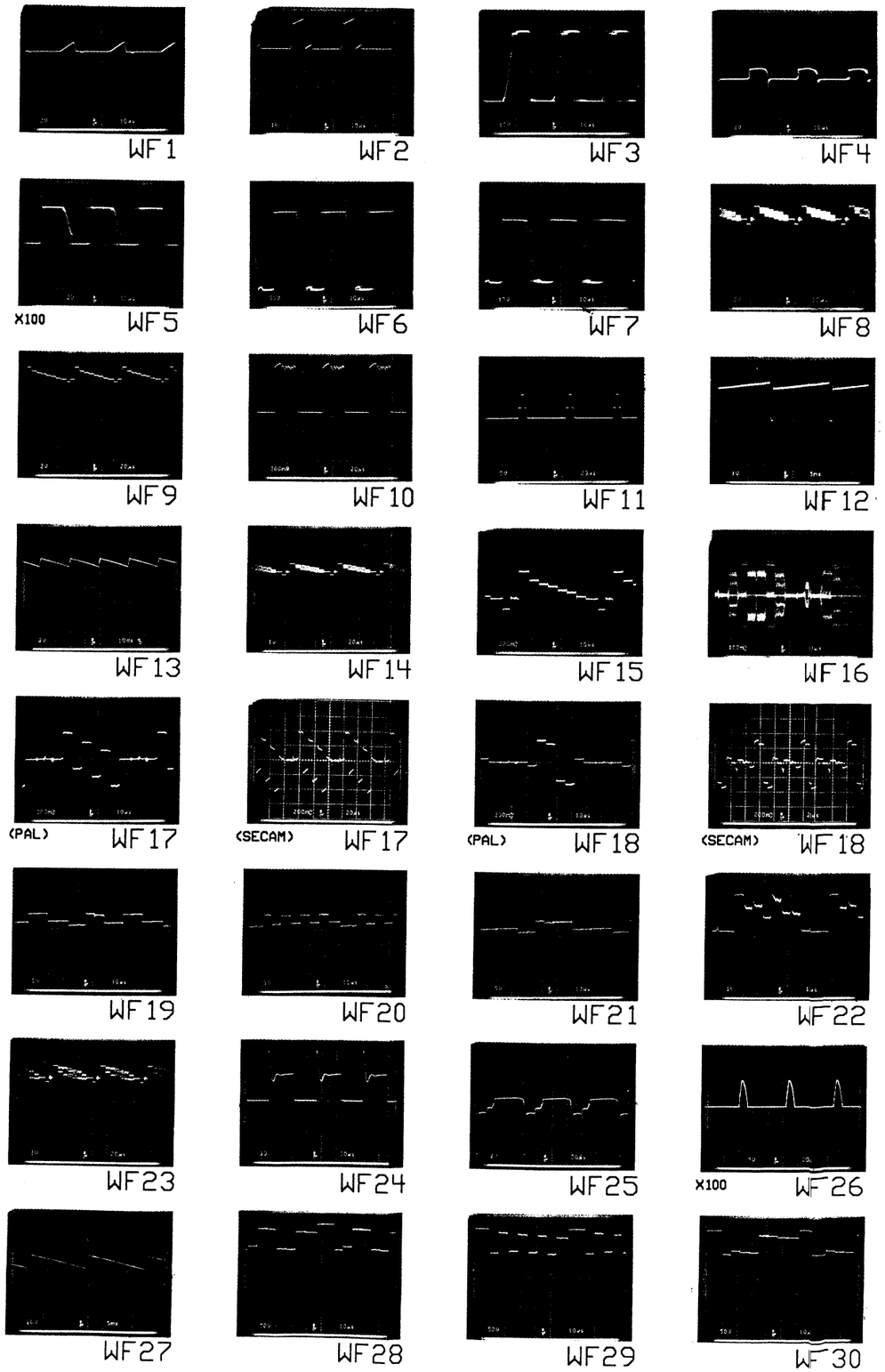


11TP08 CRT MODULE (FOR 20, 21 & 25" CRTs)



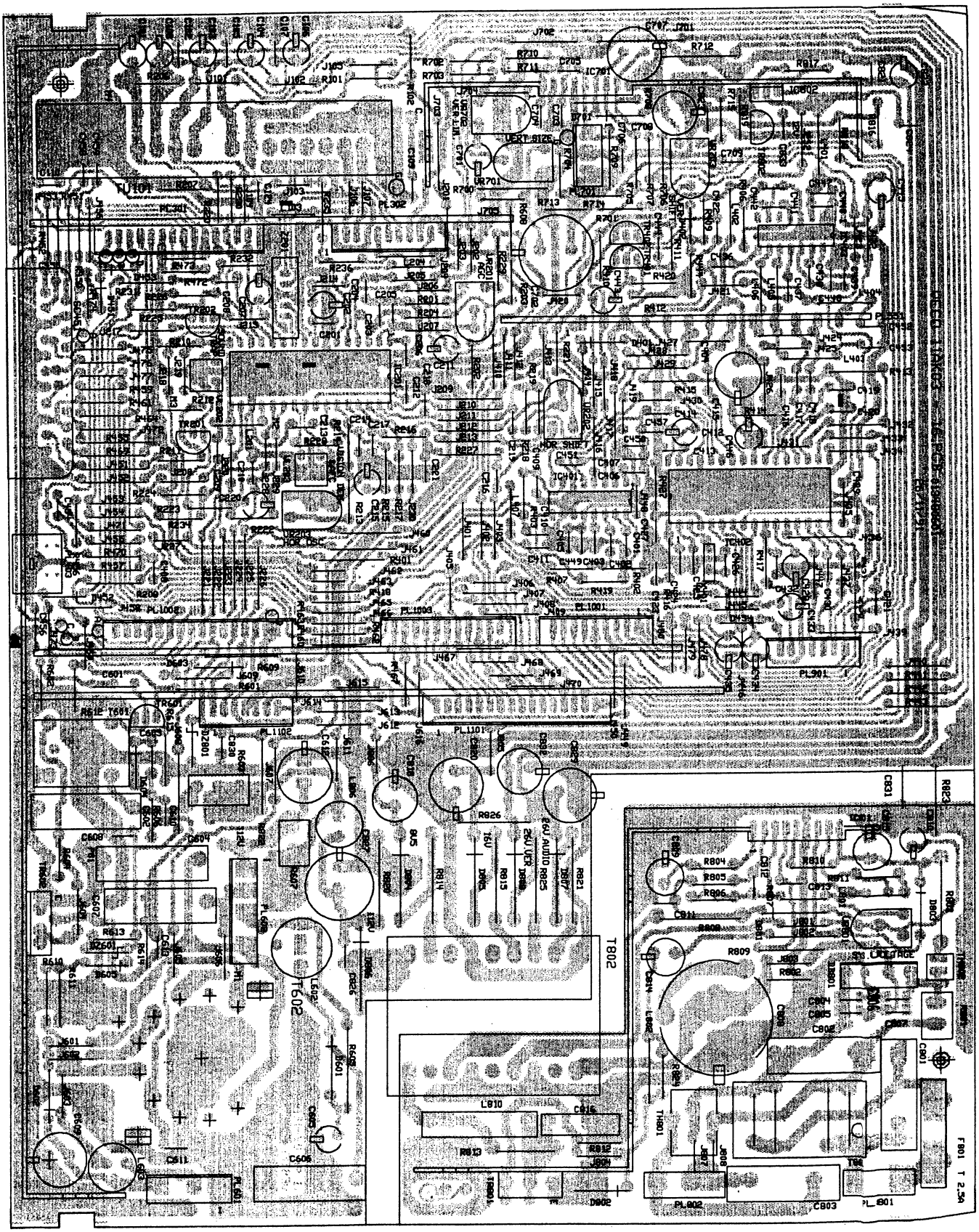
11TP09A/B CRT MODULE (FOR 14, 15, 20. 21 & 25" CRTs)

WAVEFORMS

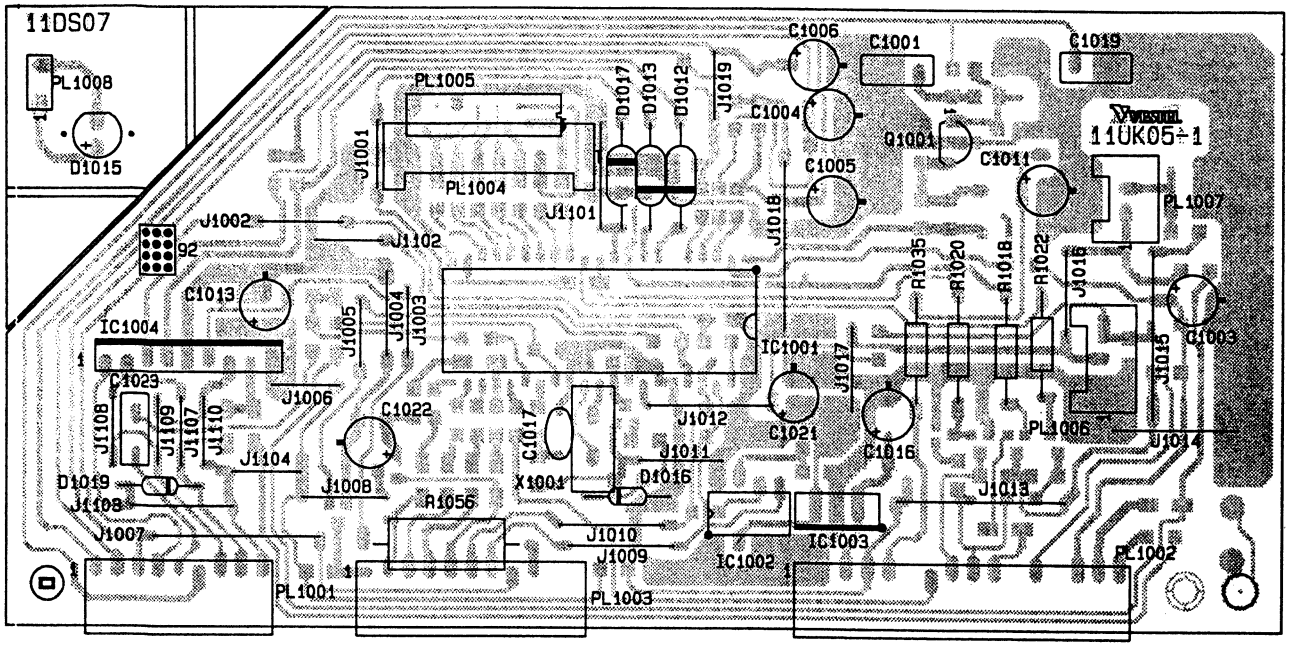


NOTE : ALL WAVEFORM MEASUREMENTS ARE TAKEN ON 21" SET.

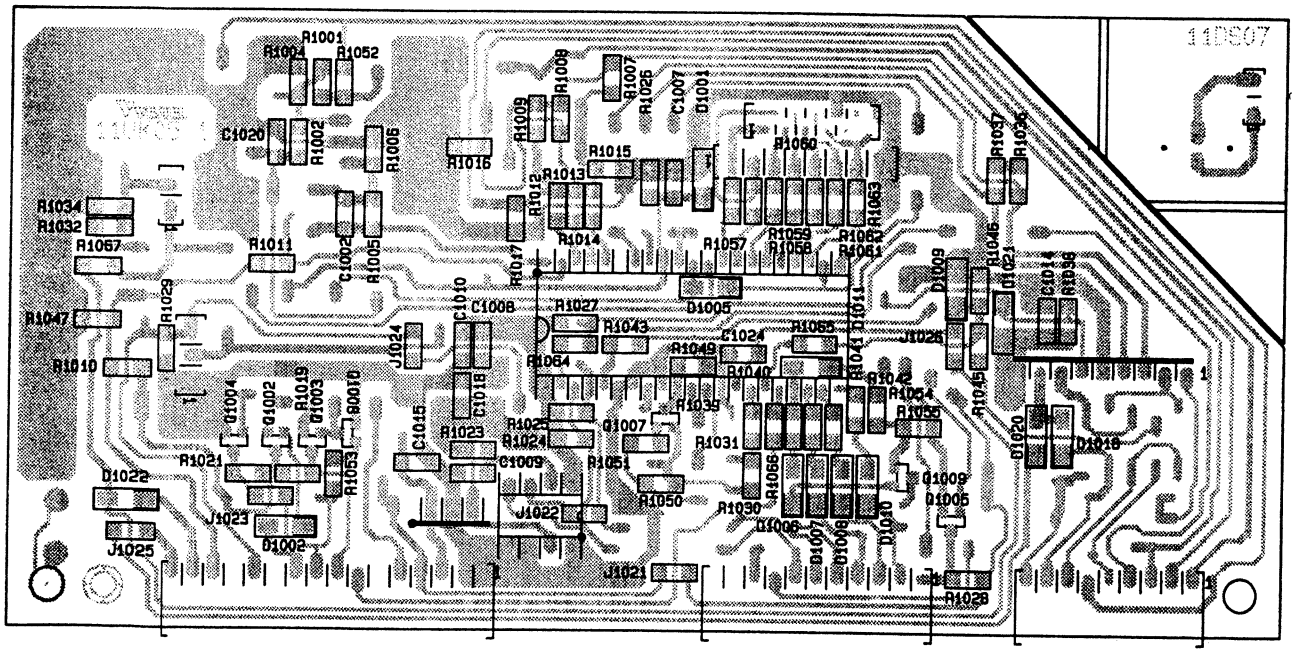
PCB LAYOUTS



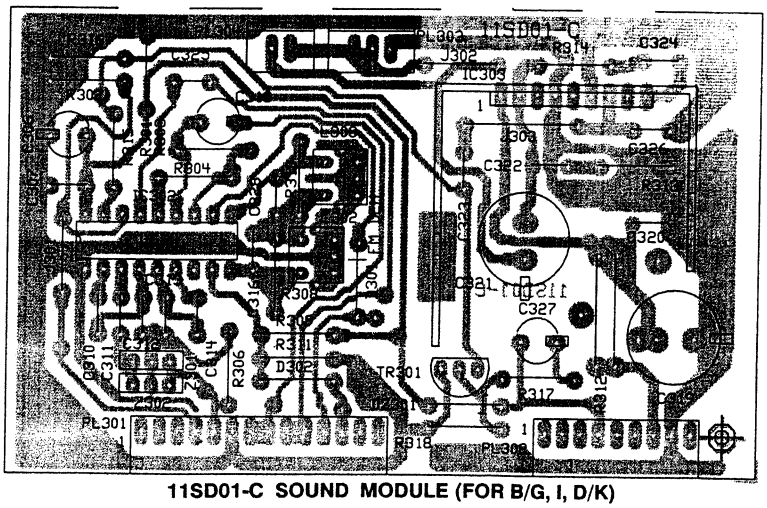
11AK03-16 MAIN BOARD



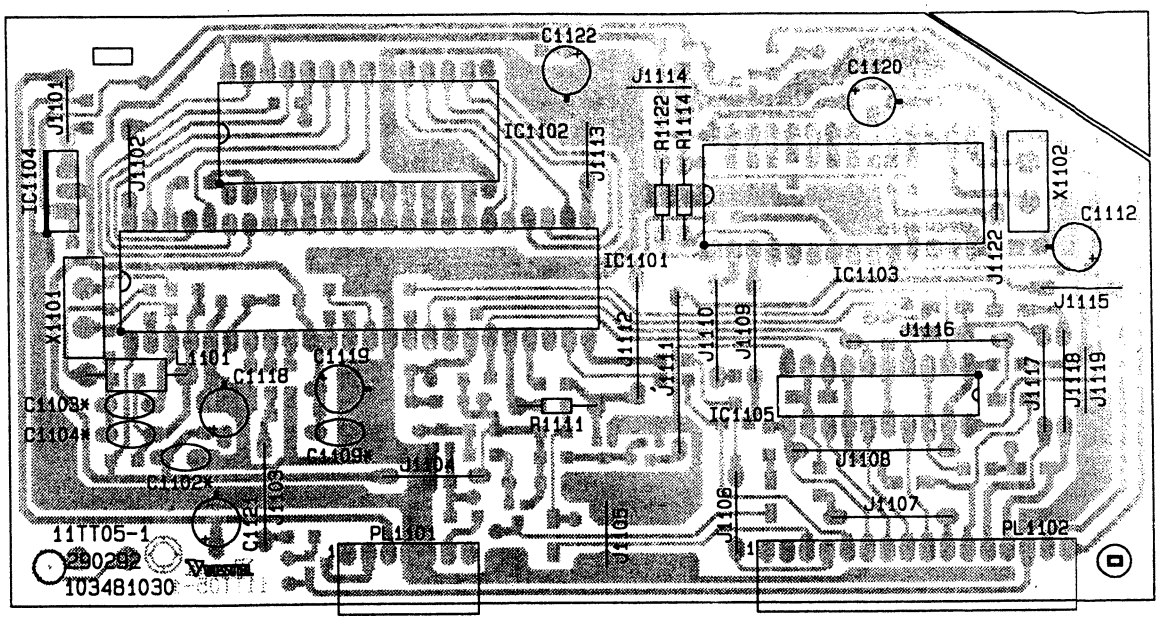
11UK05-1 REMOTE CONTROLLER MODULE



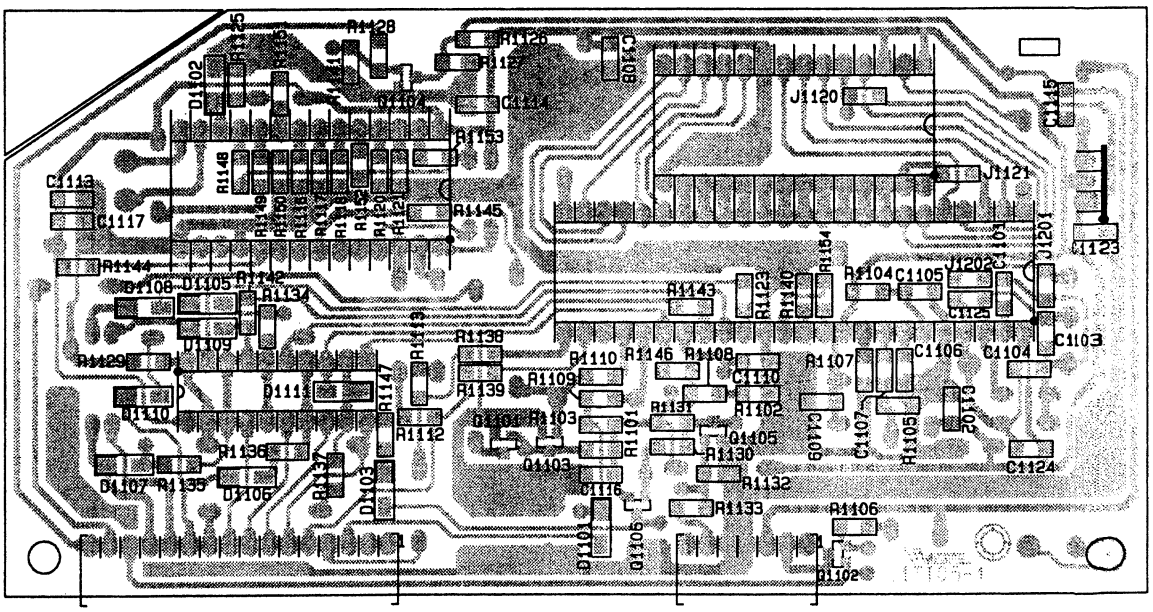
11UK05-1 REMOTE CONTROLLER MODULE (SMD SIDE)



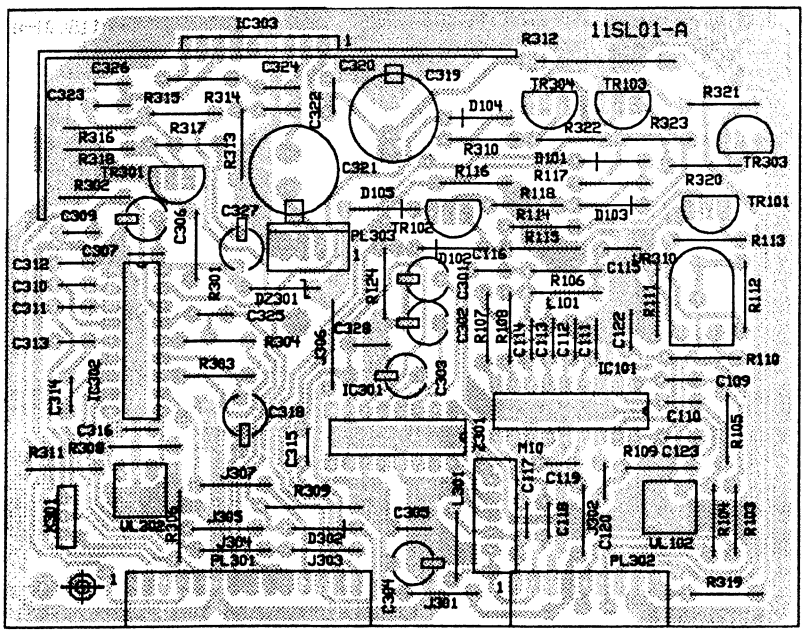
11SD01-C SOUND MODULE (FOR B/G, I, D/K)



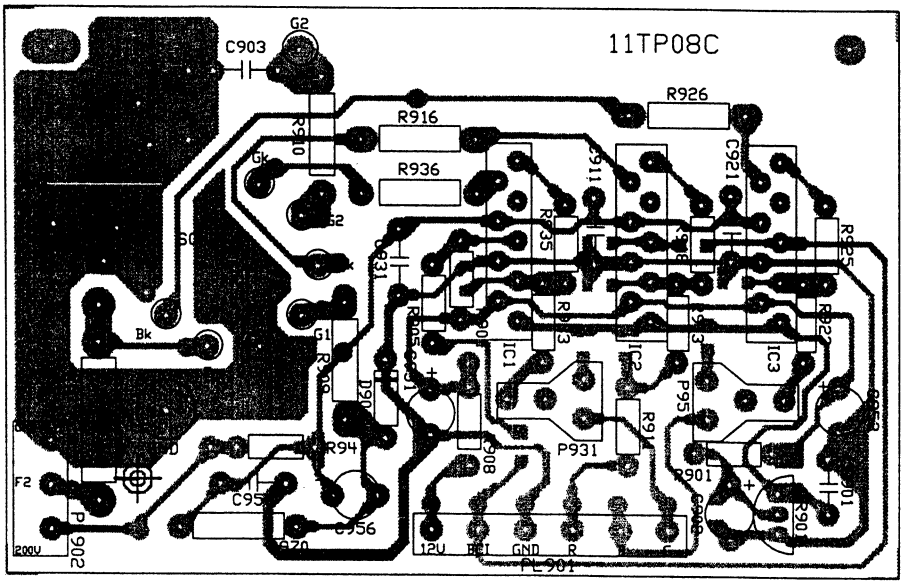
11TT05-1 TELETEXT MODULE .

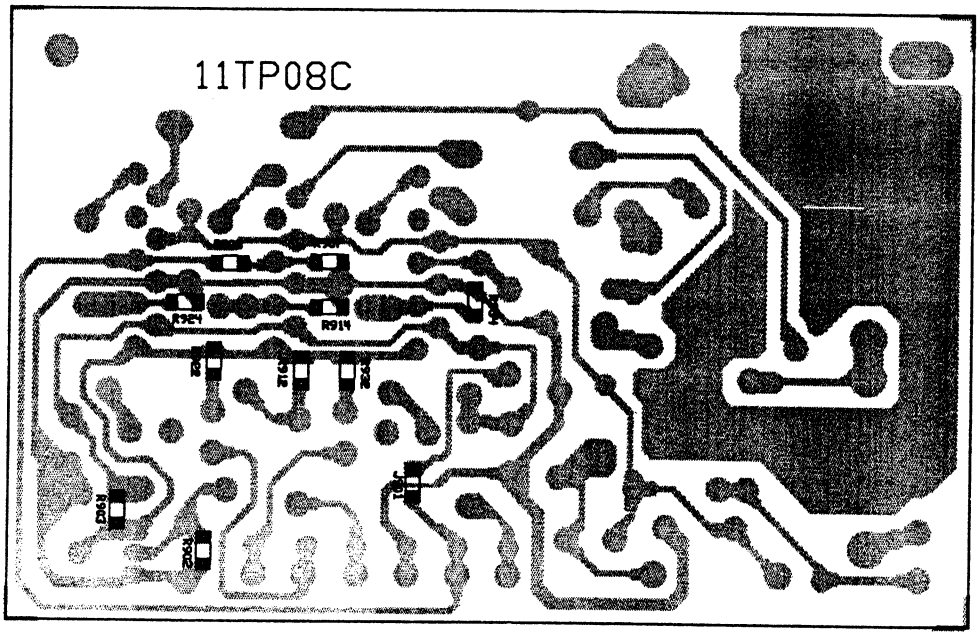


11TT05-1 TELETEXT MODULE (SMD SIDE)

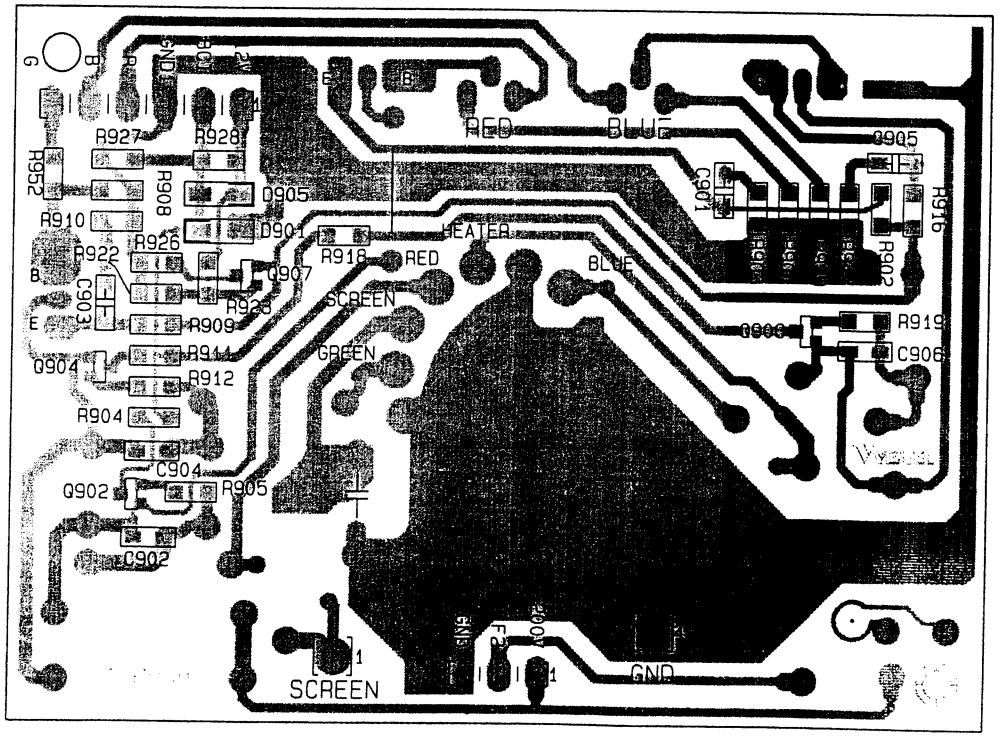


11SL01-A SOUND MODULE (FOR L/L', L/K1&B/G)

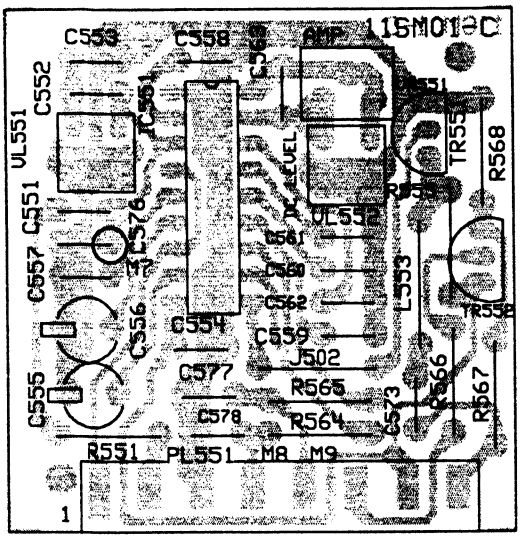




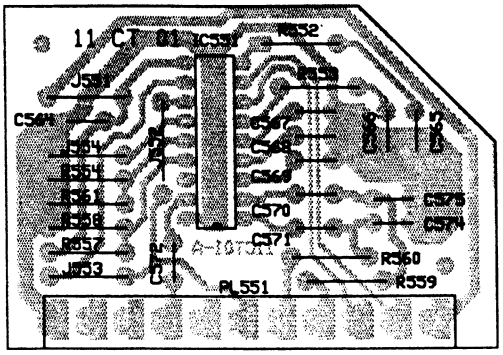
11TP08 CRT MODULE (SMD SIDE)



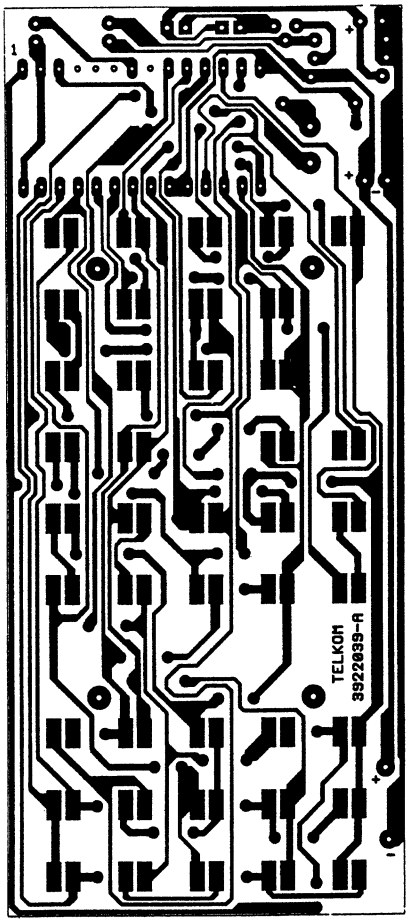
11TP09B CRT MODULE (SMD SIDE)

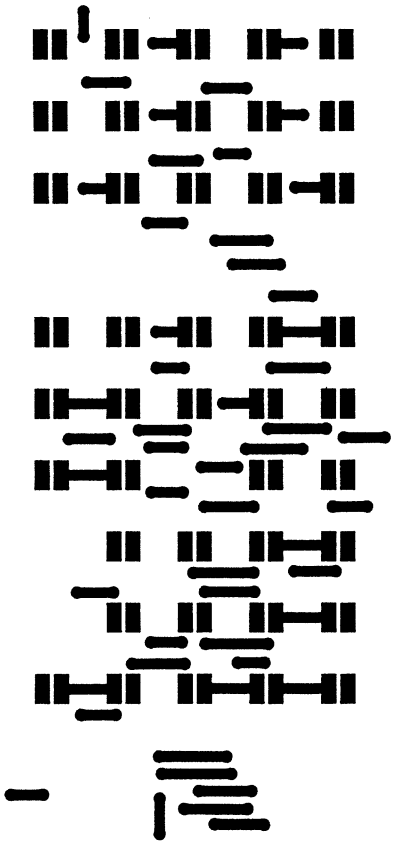


11SM01-C SECAM MODULE

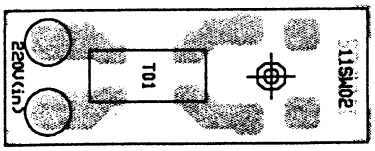


11CT01 CTI MODULE

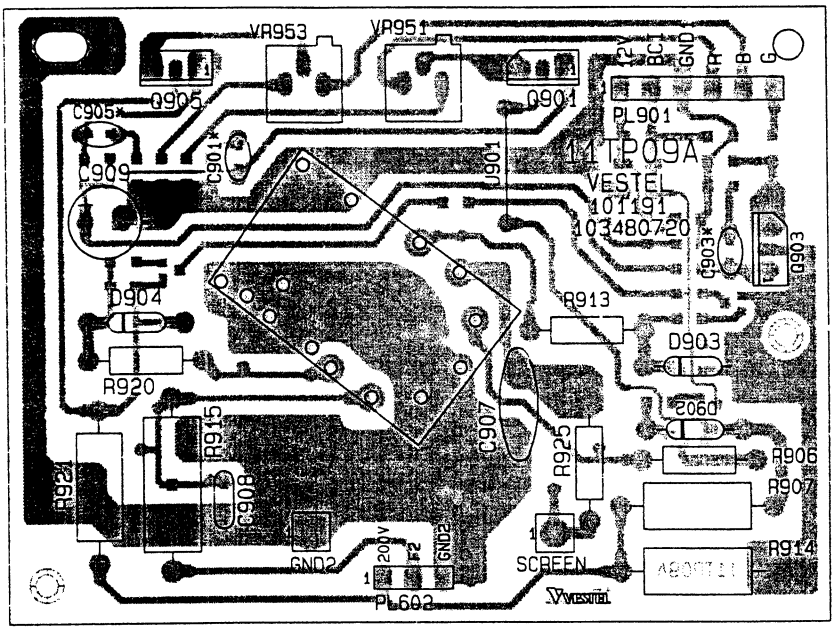




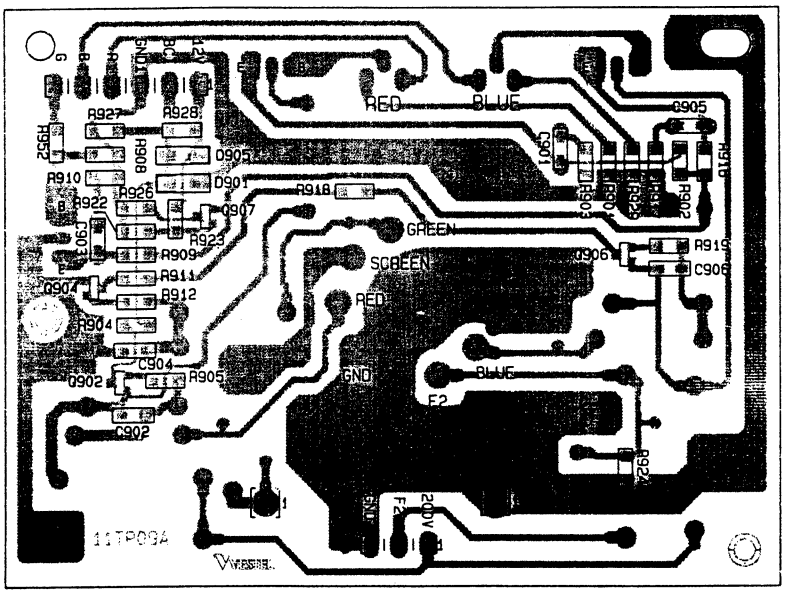
TRANSMITTER LAYOUT



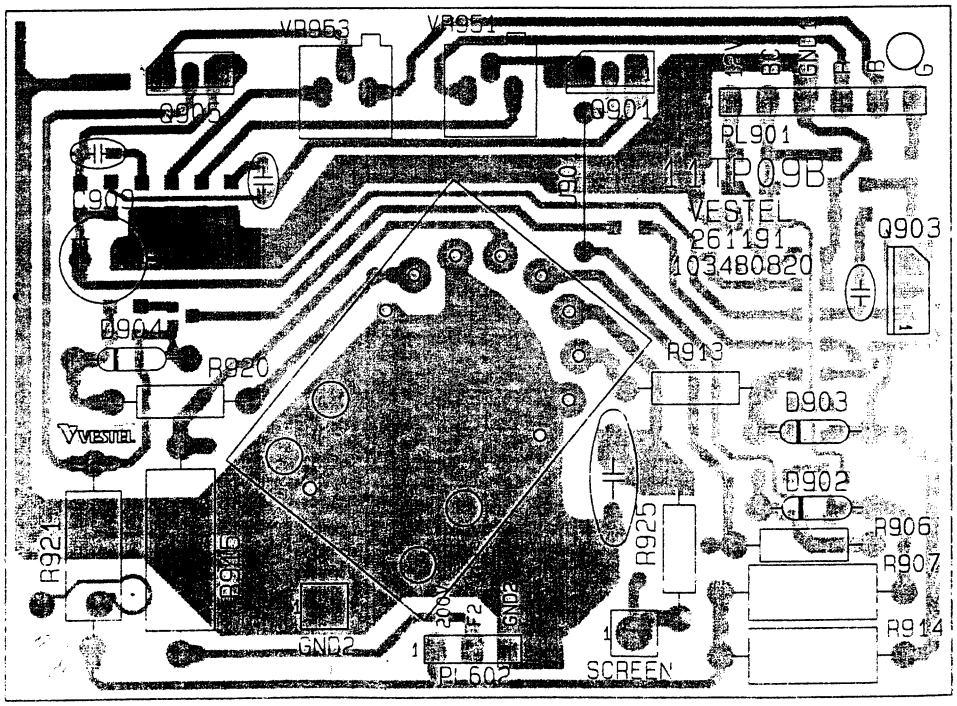
11SW02 SWITCHING MODULE



11TP09A CRT MODULE (FOR 14 & 15" CRTs)



11TP09A CRT MODULE (SMD SIDE)



11TP09B CRT MODULE (FOR 20, 21 & 25" CRTs)

6633

Technische Unterlage

Quelle Technischer Kundendienst 015.837 8

Ersatzteilliste:

BESTELL-NR.	0158378
GERAETEBEZEICHNUNG	FARBFERNSEHGERAET
WARENGATTUNG	647
AUSFUEHRUNGS-NR.	001
GERAETEBESCHREIBUNG	55 CM, STEREO, VT
PRIVILEG	FT 8127
LIEFERANTEN-NR.	422116
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KATALOG	932
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BETREUUNG	EIGEN
KOSTENTRAEGER	EIGEN
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Bei allen Reparaturen sind die gültigen Sicherheitsvorschriften zu beachten!

6633

POSITION	SYM	BEZEICHNUNG		ET-NUMMER	ANZ
		GEHAEUSE-VORDERTEIL		776 210 7	001
		GEHAEUSE-RUECKTEIL		776 211 5	001
		BEDIENTEILRAHMEN		776 209 9	001
		KNOPF F.NETZSCHALTER		776 208 1	001
		BILDR. A 51 ISY 61 X 03		776 203 2	001
		VERSCHLUSS F. KLAPPE		729 507 4	001
		LAUTSPRECHER 8 OHM 5W		776 056 4	001
		ANZEIGEPLATTE (LED 11 DS 08)		776 196 8	001
		FERNBEDIENUNG UKV 605		776 200 8	001

		SCHALTER, EIN / AUS KPL.		775 156 3	001
		TUNER KHC 2000		729 474 7	001
		IR-VORVERSTAERKER LTM 9137-3		776 042 4	001
		TON-ZF-PLATTE 11 GS 03-1		776 204 0	001
		BEDIENTEILPLATTE 11 UK 06		776 205 7	001
		HAUPTCHASSIS		776 206 5	001
		VIDEOTEXT MODUL 11 TT 05-1		776 067 1	001
		BR-PLATTE 11 TP 09 B		776 207 3	001
		ANZEIGEPLATTE (LED 11 DS 08)		776 196 8	001

		KONDENSATOR 1 NF 1 KV		300 770 5	001
		KONDENSATOR 2200 PF / 4 KV		729 296 4	001
C	808	ELKO 150 UF 385 V		775 157 1	001

		INFRAROT-SENDE-DIODE LD 271		946 936 2	001
		DIODE BYD 33 J		728 224 7	002
		DIODE BA 157		176 406 7	003
		DIODE RB-156		728 497 9	001
		DIODE BY 299		927 713 8	005
		DIODE 1 N 4007		176 436 4	001
		DIODE 1 N 4148		175 540 4	015
		ZENERDIODE RD 3,6 EL		958 483 0	001
		ZENERDIODE RD 9,1 EB 3		966 185 1	001
		ZENERDIODE ZPD 4,7		929 218 6	001
		ZENERDIODE ZTK 33		176 855 5	001
		DIODE 1 N 4148	SMD	729 496 0	012
		Z-DIODE ZMM 5V1	SMD	729 497 8	003
		Z-DIODE ZMM 5,1 V	SMD	775 170 4	001

IC	100	IC SAA 3010 P		747 470 3	001
IC	201	IC TDA 4504 A		729 481 2	001
IC	301	IC TDA 3857		775 039 1	001
IC	302	IC TDA 8416		776 201 6	001
IC	303	IC TDA 8425 / V7		776 199 2	001
IC	304	IC TDA 1521 A		776 197 6	001
IC	401	IC TDA 8452 A		729 482 0	001
IC	402	IC TDA 8390 A / N1		776 047 3	001
IC	403	IC TDA 8451 A		729 484 6	001
IC	701	IC TDA 3653 B		729 477 0	001
IC	801	IC TDA 4601		725 328 9	001
IC	802	IC LM 317 T		729 478 8	001
IC	1001	IC CTV 340 S		776 198 4	001
IC	1002	IC PCF 8581 (YES)		776 045 7	001
IC	1003	IC 7805 U		929 535 3	001
IC	1004	IC LA7910		766 137 4	001
IC	1101	IC SAA 5246 P / T M6		776 048 1	001
IC	1102	IC SRAM 8K8 /FCB 61 C 65		776 049 9	001
IC	1103	IC PCF 84 C 81 / CTV 974		776 046 5	001
IC	1104	IC LM 317 T		729 478 8	001

		ENTMAGNETISIERUNGSSPULE 20/21 "		776 051 5	001
L	602	LINEARITAETSSPULE		729 492 9	001
L	806	SPULE 150 UH (0,82 A)		729 495 2	001

		WIDERSTAND 0,22 OHM 0,50 W SI		927 591 8	001
		WIDERSTAND 4,7 OHM 1,00 W SI		927 588 4	001
		WIDERSTAND 3,9 OHM 4 W		957 815 4	001

SAW		SAW FILTER		729 490 3	001
SAW		OFW FILTER G 9250		776 202 4	001

SW		NETZSCHALTER		729 499 4	001

POSITION	SYM	BEZEICHNUNG		ET-NUMMER	ANZ
T	601	TREIBERTRAFO		729 489 5	001
T	602	ZEILENTRAFO		776 054 9	001
T	801	EINGANGSFILTER 2X32 UH		776 053 1	001
T	802	WANDLERTRAFO (NETZTRAFO)		729 493 7	001

TH	801	NTC-WIDERSTAND		729 503 3	001
TH	802	PTC-WIDERSTAND		729 504 1	001

TR		TRANSISTOR BF 255		175 761 6	001
TR		TRANSISTOR BC 327 - 25		729 980 3	001
TR		TRANSISTOR BU 506 DF - S		729 177 6	001
TR		TRANSISTOR BU 508 A		725 001 2	001
TR		TRANSISTOR BC 546 B		923 701 7	004
TR		TRANSISTOR BC 548 C		924 057 3	001
TR		TRANSISTOR BC 556 B		945 328 3	001
TR		TRANSISTOR BD 373 D		951 626 1	001
TR		TRANSISTOR BF 869		957 394 0	001
TR		TRANSISTOR BC 848 B	SMD	729 501 7	013
TR		TRANSISTOR BC 858 B	SMD	729 502 5	002
TR		TRANSISTOR BF 821	SMD	776 055 6	003

TU	101	TUNER KHC 2000		729 474 7	001

V		BILDR. A 51 ISY 61 X 03		776 203 2	001
		BILDROEHRENSOCKEL		775 167 0	001
		ENTMAGNETISIERUNGSSPULE 20/21 "		776 051 5	001

X	301	QUARZ 10.0 MHZ		722 890 1	001
X	401	QUARZ 4,43 MHZ		728 261 9	001
X	1001	QUARZ 10.0 MHZ		722 890 1	001
X	1101	QUARZ 27 MHZ		729 672 6	001
X	1102	QUARZ 9,8304 MHZ		776 058 0	001

		FERNBEDIENUNG UKV 605		776 200 8	001